



**Bournemouth
University**

Faculty of Science and Technology Department of Life and Environmental Sciences

UG FRAMEWORK / PROGRAMME SPECIFICATION

Life and Environmental Sciences Framework

BSc (Hons) Biological Sciences

BSc (Hons) Ecology and Wildlife Conservation

BSc (Hons) Environmental Science

BSc (Hons) Geography

BSc (Hons) Marine Ecology & Conservation (Top up)

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BASIC FRAMEWORK / PROGRAMME DATA

Originating institution(s)	<i>Bournemouth University</i>
Award(s) and title(s)	<i>BSc (Hons) Biological Sciences DipHE Biological Sciences CertHE Biological Sciences BSc (Hons) Ecology and Wildlife Conservation DipHE Ecology and Wildlife Conservation CertHE Ecology and Wildlife Conservation BSc (Hons) Environmental Science DipHE Environmental Science CertHE Environmental Science BSc (Hons) Geography DipHE Geography CertHE Geography BSc (Hons) Marine Ecology & Conservation (Top up)</i>
UCAS Programme Code(s) (where applicable and if known)	<i>Biological Sciences C100 Ecology and Wildlife Conservation CD14 Environmental Science D449 Geography F800</i>
HESA JACS (Joint Academic Coding System) Code(s) per programme/pathway	<i>Biological Sciences C100, Ecology and Wildlife Conservation C150,C184 Maine Ecology and Conservation C161, C184 Geography C800, C810, L700 Environmental Sciences C800, F750, F751</i>
External reference points(s)	<ul style="list-style-type: none"> • <i>The UK Quality Code for Higher Education;</i> • <i>Part A: Setting and maintaining academic standards;</i> • <i>Chapter A1: UK and European reference points for academic standards (October 2013) - incorporates Framework for Higher Education Qualifications, Foundation Degree qualification benchmarks and subject benchmark statements;</i> • <i>Benchmark statements for Bioscience (2007), Geography (2014), Earth sciences, environmental sciences and environmental studies (2014)</i>
Professional, Statutory and Regulatory Body (PSRB) links	<i>BSc Environmental Sciences is accredited by the Institution of Environmental Sciences (IES) BSc Geography is accredited by the Royal Geographical Society</i>
Place(s) of delivery	<i>Bournemouth University – All Programmes Kingston Maurward College –BSc Marine Ecology and Conservation – Top Up</i>
Mode(s) of delivery	<i>All courses Full Time or Part Time. Please note, not all option units may run each year</i>
Credit structure	<i>Level 4 120 credits (60 ECTS) Level 5 120 credits (60 ECTS) Level 6 120 credits (60 ECTS)</i>
Duration	<i>BSc Courses Typically 3 years full time, 6 years part time BSc Top-up Typically 1 year full time, 2 years part time</i>
Date of original approval(s)	<i>April 2015</i>
Date of first intake	<i>Sept 2015</i>

Student numbers	<i>BSc Biological Sciences Min- 20, Max – 65, Optimum – 45 BSc Ecology and Wildlife Conservation Min – 20, Max – 65, Optimum – 40 BSc Environmental Sciences Min – 10, Max – 50, Optimum – 30 BSc Geography Min - 20, Max - 65, Optimum – 40 BSc Marine Ecology and Conservation – TopUp. Min - 5, Max – 30, Optimum – 15.</i>
Expected start dates	<i>All currently September only</i>
Placements	<i>EWC – 5 Week placement (level 5) and either 5 week placement (level 6) or minimum 30-week placement (level P) Environmental Sciences –5 Week placement (level 5) and either 5 week placement (level 6) or minimum 30-week placement (level P) Geography – 5 Week placement (level 5) and either 5 week placement (level 6) or minimum 30-week placement (level P) Biological Sciences – option for minimum 30-week level P placement. Option for 2 week placement at level 5 and/or level 6</i>
Partner(s) and model(s)	<i>BSc Marine Ecology and Conservation Top-up. 40 credits delivered at Kingston Maurward College using shared delivery model</i>
Date and version number of this Framework/Programme Specification Student intake(s)/cohort(s)	<i>v1.17-0922</i>

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AIMS OF THE DOCUMENT

The aims of this document are to:

- Define the structure of the Life and Environmental Sciences Framework
- Specify the programme degree names and groupings within the Framework
- Identify programme and level learning outcomes
- Articulate the regulations governing the awards offered through this Framework

PROGRESSION ROUTES

This framework has one progression route. From FdSc Marine Ecology and Conservation (a BU validated programme at KMC) onto BSc (Hons) Marine Ecology and Conservation (Top-up), commencing in September 2016.

In order to take advantage of exciting new approaches to learning and teaching, as well as developments in industry, the current, approved Articulation/Recognition/Progression route(s) for this/these programme(s)/framework may be subject to change. Where this happens, students will be informed and supported by the School/Faculty as early as possible.

ACADEMIC AND PROFESSIONAL CONTEXTS

The academic context of these programmes has been developed with reference to the QAA guidelines, and specifically to the following subject benchmarks:

Biosciences (2007) – Biological Sciences, EWC, Marine Ecology and Conservation Top-up

Earth sciences, environmental sciences and environmental studies (2014) – Environmental Sciences, EWC, Marine Ecology and Conservation Top-up, MSc Marine and Freshwater Management*, Geography (2014) - Geography

Changes to programmes have been made specifically to align with academic and professional need (for example NERC 2012 Most Wanted Skills, and placements for full accreditation by Society of Biology for Biological Sciences).

AIMS OF THE FRAMEWORK / PROGRAMME(S)

BSc (Hons) Biological Sciences

This is a broad-based three-year biological sciences programme which provides an opportunity for increased specialisation in the final two years (in environmental or laboratory based/human biosciences). The programme considers the interaction of biological systems and focuses on the development of the skills necessary to apply biological concepts to the solution of practical problems.

The first year of the programme allow students to develop core knowledge and understanding in the areas of human biology, biochemistry, laboratory and investigative techniques and ecology. The final two years allows the student to choose taught units from the thematic areas developed in the first year and undertake a research project that offers the chance for a student to understand a topic in greater depth than is possible with the taught units.

Graduates will have a wide range of skills consistent with the QAA Biosciences benchmark statement and that are currently sought after by employers in the biological disciplines.

Overall Programme Aims

This undergraduate programme aims to develop in its students the ability to work as applied biological scientists both in the public and commercial sectors. The programme is naturally broad in scope to allow students to experience a range of different fields of study and gain experience and confidence as biological scientists before specialising in a more focused field.

The primary aim of this Programme is the development of graduates who:

- Have a critical understanding of the scientific and technical bases of biological science
- Have the necessary scientific knowledge base to develop successful careers as biological scientists
- Can apply appropriate skills to specific biological problems, and also communicate effectively with members of the public and with other scientists working in related fields
- Have the ability to carry out investigations in the area of biological science
- Have the capacity to give a clear and accurate account of a subject, marshal arguments in a mature way and engage in debate and dialogue both with specialists and non-specialists
- Have the skills and knowledge necessary for postgraduate study

The degree also aims to provide students with a substantial range of transferable skills in science laboratory practice, computing, data analysis and report writing as a basis for professional activity and development which may be applicable in other career areas

INTENDED LEARNING OUTCOMES

Overall Programme Outcomes

This programme provides opportunities for students to develop and demonstrate knowledge as follows:

Subject knowledge and understanding - students will be expected to:

- A1** Understand theories, concepts and principles relevant to a range of different fields within the biological sciences, and, in particular, an appreciation of the complexity and diversity of life processes and their origins, the taxonomic relationships between organisms and their interrelationships with

their environment and the role of sub-cellular processes and their application to whole organism biology and applied aspects of biology (i.e. health)

- A2** Be aware of current global biological themes, debates and concerns, and of the contribution of biological sciences to current debates and controversies
- A3** Demonstrate an ability to read and use appropriate literature with an expanded and critical understanding, while addressing such questions as content, context, aims, objectives, quality of information, and its interpretation and application
- A4** Recognise the moral and ethical dimensions of their actions and the need for professional codes of conduct

Intellectual Skills - students will be expected to:

- B1** Evaluate critically, and apply scientific knowledge and skills in the development and implementation of practical solutions to biological problems
- B2** Analyse and synthesise information relevant to the programme
- B3** Define problems and devise and evaluate possible solutions, and to solve both routine and unfamiliar problems
- B4** Integrate evidence from a range of sources to support findings and hypotheses
- B5** Plan, execute and report on a projects involving original or directed research in the laboratory or field

Subject-specific skills - students will be expected to:

- C1** Identify and use safely appropriate biological laboratory and fieldwork methods
- C2** Observe, record accurately and report biological laboratory and fieldwork activity
- C3** Prepare technical biological science reports and presentations
- C4** Present biological science research findings in a range of effective and appropriate formats
- C5** Make effective use of the relevant academic literature and other sources of information
- C6** Critically analyse and synthesise research data from a wide range of sources and draw conclusions
- C7** Reflect on their own experiences and learning within their subject areas and apply this learning to planning their careers and extra-curricular opportunities
- C8** Make effective use of IT and software packages relevant to their areas of study

Transferable skills - students will be expected to:

- D1** Communicate effectively by oral, written and visual means
- D2** Use IT including the Web, spread sheets and word processing
- D3** Apply a range of basic statistical tests on experimental and fieldwork data

- D4 Solve numerical problems using appropriate techniques
- D5 Work in collaboration with others, including staff and other students, in the UK and internationally
- D6 Demonstrate problem solving skills and the application of knowledge across discipline areas
- D7 Identify and work towards targets for personal, career, and academic development
- D8 Be independent and reflective learners

Level Outcomes

LEVEL 4 OUTCOMES - CertHE Biological Sciences

Subject knowledge and understanding - students will be expected to have:

- A1 A basic knowledge of chemistry and biology to underpin the requirements of the year 2 science units.
- A2 A foundation in biochemistry, taxonomy, genetics and evolution
- A3 An appreciation of the nature and sources of UK and EU law and the regulatory control that it places on biological problems/issues
- A4 An understanding of the scientific and human behavioural dimensions of a range of biological, environmental and human health issues
- A5 A basic understanding of sampling, investigative techniques and an understanding of basic statistical methods
- A6 An appreciation of a range of techniques for the qualitative and quantitative analysis in the areas of chemistry and biology

Intellectual Skills - students will be expected to:

- B1 Analyse numerical data and identify and use appropriate statistical tests
- B2 Identify key areas of the law as they affect biological issues
- B3 Identify and utilise appropriate information sources
- B4 Demonstrate an awareness of the scientific method
- B5 Develop laboratory skills relevant to the biological sciences

Subject specific skills - students will be expected to:

- C1 Observe, record accurately and report laboratory / fieldwork activity
- C2 Use laboratory / fieldwork equipment to generate data

C3 Make use of literature relevant to the programme, citing and referencing work in an appropriate manner

C4 Write appropriately structured reports

Transferable skills - students will be expected to:

D1 Communicate effectively by oral, written and visual means

D2 Use IT including Microsoft Office, e-learning material, and myBU

D3 Apply a range of basic statistical tests to experimental and fieldwork data

D4 Work in collaboration with others, including staff and students

D5 Demonstrate problem solving skills and the application of knowledge across discipline areas

D6 Be independent and reflective learners

LEVEL 5 OUTCOMES - DipHE Biological Sciences

Subject knowledge and understanding - students will be expected to have:

A1 A knowledge and understanding of the fundamental principles of biology (e.g. biochemistry, and evolution)

A2 A clear appreciation of the complexity and inter-disciplinary nature of biological problems

A3 Knowledge and critical understanding of the main concepts within the field of the studied units

A3 A knowledge of a range of methods and techniques, including experimental design and statistics, appropriate to the biological and environmental sciences

A4 Understanding of a range of laboratory and analytical skills

Intellectual Skills - students will be expected to:

B1 Apply scientific concepts to solve or investigation a range of biological problems

B2 Collect data using methods consistent with good evidence-based scientific practice

B3 Evaluate information relevant to the discipline and understand the context provided by current regulatory frameworks

B4 Apply theoretical knowledge and concepts to real-world biological problems

B5 Exercise judgement in using appropriate methods of data analysis and statistical methods

Subject specific skills - students will be expected to:

C1 Use appropriately, and safely biological science laboratory and field equipment

C2 Observe and record biological science activity in the field / laboratory

C3 Prepare technical and scientific reports and presentations, using relevant supporting information sources, citing and referencing work in an appropriate manner

C4 Make effective use of IT and software packages relevant to the Programme

Transferable skills - students will be expected to:

D1 Be reflective learners and analyse their strengths and weaknesses

D2 Communicate effectively in both written and verbal form

D3 Work effectively in teams

D4 Demonstrate problem solving skills

D5 Apply a range of statistical tests to experimental and fieldwork data

D6 Have strong IT skills

LEVEL 6 OUTCOMES - BSc (Hons) Biological Sciences

Subject knowledge and understanding - students will be expected to have:

A1 A critical and systematic understanding of key aspects of their fields of study with an appreciation of some contemporary themes, concepts and debates in the biological sciences

A2 A knowledge and understanding of experimental design, the value of fieldwork / laboratory based activity

A3 Knowledge and critical understanding of the main concepts within the field of the option choices selected

A4 A critical understanding of biological science research techniques and methods

Intellectual Skills - students will be expected to:

B1 Critically evaluate and review information from a range of sources and be aware of the complexity of issues and the often incomplete nature of the available data

B2 Apply appropriate research methodologies to address the often complex and unpredictable nature of research-orientated problems

B3 Identify and define problems, devise and evaluate solutions, demonstrating an ability to deploy effectively the ideas and techniques that are appropriate to the discipline

B4 Critically apply knowledge to specific situations and problems

Subject specific skills - students will be expected to:

C1 Plan, conduct and present either a directed or independent biological science research project using research skills, including, where appropriate, the use of the relevant statistical tests, appropriate to the subject at this level

C2 Relate biological science investigations to previous work and comment on appropriate aspects of current research in the disciplines covered by the programme, and be able to cite and reference work in an appropriate manner

C3 Be critically aware of health and safety issues, ethical questions, and the regulatory framework associated with applied biology science

Transferable skills - students will be expected to:

D1 Undertake self-management and personal organisation (e.g. time management)

D2 Work independently under pressure to meet deadlines

D3 Communicate information, ideas, problems and solutions to a range of audiences

D4 Demonstrate problems solving skills and the application of knowledge in their chosen specialist areas

D5 Recognise and respect the views of others, and, where appropriate, identify opportunities for further learning

D6 Work effectively both with others, and independently.

LEARNING AND TEACHING STRATEGIES AND METHODS

Teaching and learning will be delivered through combinations of lectures, seminars, practical work in the laboratory and field and small group tutorials. The exact combinations of these techniques will be unit specific, but there is a strong emphasis on small group tutorial learning in levels 4 and 5, particularly in relation to academic skills. These sessions will help with skills learning, by providing sessions in a subject specific context, but also will also help focus on assessment strategies and provide formative feedback.

ASSESSMENT STRATEGIES AND METHODS

The assessment strategy is a blend of coursework and exam, with no units in the LES framework being assessed solely by examination, and in any semester the overall percentage of examination being < 50%. Coursework might consist of essays, research papers, presentations, posters and sometimes a number of smaller tasks, such as multiple choice tests, which also serve to provide formative feedback throughout a unit. In almost all cases, alternative assessments can be provided where there is convincing evidence from ALS (additional learning support). The majority of work will be submitted electronically and feedback provided through myBU.

PROGRAMME SKILLS MATRIX

Programme Skills Matrix Template – BSc (Hons) Biological Sciences

Level	Core / Opt	Unit	A1	A2	A3	A4	B1	B2	B3	B4	B5	C1	C2	C3	C4	C5	C6	C7	C8	D1	D2	D3	D4	D5	D6	D7	D8
6 o		Advanced topics in Genetics	x	x		x	x									x				x	x		x		x		
6 o		Biological Oceanography	x	x								x	x	x		x				x	x	x	x	x	x		
6 o		Marine conservation	x	x		x			x			x	x			x				x	x	x			x		
6 o		Pathophysiology	x												x					x	x						
6 o		Biomolecules	x					x	x			x	x	x		x	x		x	x	x	x	x				
6 o		Parasitology and Epidemiology	x	x		x								x		x				x	x	x	x		x		
6 o		Primate Behavioural Ecology	x	x		x		x								x				x	x	x	x				
6 o		Topics in Wildlife Conservation	x	x		x	x		x							x				x	x				x		
6 c		Independent Research Project	x		x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
5 c		Advanced Skills For Biology			x		x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
5 o		Animal Biology	x			x				x						x				x	x	x					
5 o		Biochemistry	x									x	x	x		x				x	x						
5 o		Ecosystems	x	x	x	x										x				x	x						
5 o		Advanced Cell Biology	x										x	x		x				x	x				x		
5 o		Behavioural Ecology	x		x				x		x					x				x	x	x					
5 o		Becoming Human	x	x					x							x				x	x	x	x		x		
5 o		Environmental and Societal Challenges	x	x					x							x				x	x				x	x	
5 c		Evolutionary Biology	x				x									x				x	x		x				
5 o		International Field Trip	x		x	x	x			x	x	x		x		x				x	x			x	x		
5 o		Introduction to toxicology														x				x	x			x			
5 o		Microbiology	x							x		x	x	x		x				x	x			x			
4 c		Biological Research Skills			x	x	x	x				x		x	x	x	x	x	x	x	x	x	x	x	x	x	x
4 c		Chemistry							x			x								x	x		x	x	x		
4 c		Practical Skills in Biology							x			x	x	x			x			x	x	x	x	x	x		
4 c		Cell Biology	x													x				x	x		x	x			
4 c		Diversity of Life	x	x								x				x				x	x			x			
4 c		Human Anatomy and Physiology	x			x										x				x	x			x			

<p>A - Subject Knowledge and Understanding</p> <p>A1 Understand theories, concepts and principles relevant to a range of different fields within the biological sciences, and, in particular, an appreciation of the complexity and diversity of life processes and their origins, the taxonomic relationships between organisms and their interrelationships with their environment and the role of sub-cellular processes and their application to whole organism biology and applied aspects of biology (i.e. health)</p> <p>A2 Be aware of current global biological themes, debates and concerns, and of the contribution of biological sciences to current debates and controversies.</p> <p>A3 Demonstrate an ability to read and use appropriate literature with an expanded and critical understanding, while addressing such questions as content, context, aims, objectives, quality of information, and its interpretation and application;</p> <p>A4 Recognise the moral and ethical dimensions of their actions and the need for professional codes of conduct.</p>	<p>C - Subject-specific/Practical Skills</p> <p>C1 Identify and use safely appropriate biological laboratory and fieldwork methods.</p> <p>C2 Observe, record accurately and report biological laboratory and fieldwork activity.</p> <p>C3 Prepare technical biological science reports and presentations.</p> <p>C4 Present biological science research findings in a range of effective and appropriate formats.</p> <p>C5 Make effective use of the relevant academic literature and other sources of information.</p> <p>C6 Critically analyse and synthesise research data from a wide range of sources and draw conclusions</p> <p>C7 Reflect on their own experiences and learning within their subject areas and apply this learning to planning their careers and extra-curricular opportunities</p> <p>C8 Make effective use of IT and software packages relevant to their areas of study.</p>
<p>B - Intellectual Skills</p> <p>B1 Evaluate critically, and apply scientific knowledge and skills in the development and implementation of practical solutions to biological problems.</p> <p>B2 Analyse and synthesise information relevant to the programme.</p> <p>B3 Define problems and devise and evaluate possible solutions, and to solve both routine and unfamiliar problems</p> <p>B4 Integrate evidence from a range of sources to support findings and hypotheses</p> <p>B5 Plan, execute and report on a project involving original or directed research in the laboratory or field</p>	<p>D - Transferable Skills</p> <p>D1 Communicate effectively by oral, written and visual means.</p> <p>D2 Use IT including the Web, spread sheets and word processing.</p> <p>D3 Apply a range of basic statistical tests on experimental and fieldwork data.</p> <p>D4 Solve numerical problems using appropriate techniques.</p> <p>D5 Work in collaboration with others, including staff and other students, in the UK and internationally</p> <p>D6 Demonstrate problem solving skills and the application of knowledge across discipline areas.</p> <p>D7 Identify and work towards targets for personal, career, and academic development.</p> <p>D8 Be independent and reflective learners.</p>

BSc (Hons) Ecology & Wildlife Conservation

Introduction

The conservation of biological systems is an essential component of sustainable environmental management. Ecological processes play large and complex roles in regulating the physical environment on Earth. However, natural biological systems across the world are currently being damaged by human activity. Factors such as pollution, land and water use for agriculture and the over exploitation of wild populations are causing large decreases in biological diversity. Further reduction in biological diversity will jeopardise both the stability of current ecological systems and the evolution of future systems.

The effective conservation of biological diversity requires professionals that can integrate an understanding of ecology with knowledge of the legislative frameworks and the regulatory authorities for environmental protection in general and conservation ecology in particular. It also requires that these individuals are able to put conservation ecology in the wider context of sustainable development. The broad aim of this degree is to provide a means by which students can develop these attributes.

Overall Programme Aims

This undergraduate programme aims to develop in its students the abilities to work in regulatory agencies, NGOs, environmental consultancy, related industry, and other organisations concerned with the conservation of the environment in general and biological systems in particular.

The primary aim of this course is the development of graduates who:

Have a critical understanding of the scientific, technical, and regulatory bases of conservation ecology and wider environmental issues

Have the necessary scientific, regulatory and management knowledge base to develop successful careers in specialist fields of Ecology and Wildlife Conservation

Can apply these skills to specific environmental problems, and also communicate effectively with both those working in the field of Ecology and Wildlife Conservation and with the wider public

Have the ability to carry out independent investigations in the area of conservation ecology and environmental science

Have the skills and knowledge necessary for postgraduate study

The degree also aims to provide students with a substantial range of transferable skills in science laboratory practice, computing, data analysis, report writing and project management as a basis for professional activity and development which may be applicable in other career areas.

INTENDED LEARNING OUTCOMES

Overall Programme Outcomes

This programme provides opportunities for students to develop and demonstrate knowledge as follows:

Subject knowledge and understanding - students will be expected to:

A1 Understand relevant theories, concepts and principles relevant to the field of Ecology and Wildlife Conservation

A2 Have a detailed knowledge and understanding of the essential facts and theories in the student's chosen area of specialisation

A3 Place their scientific knowledge in Ecology and Wildlife Conservation within the UK, EC and Global regulatory framework

A4 Understand the multidisciplinary nature of the degree programme and the need to apply knowledge from a range of subject areas in addressing problems in Ecology and Wildlife Conservation

A5 Recognise the moral and ethical dimensions of their actions and the need for professional codes of conduct

A6 Have knowledge and understanding of management techniques relevant to Ecology and Wildlife Conservation

Intellectual Skills - students will be expected to:

B1 Evaluate critically, and apply scientific knowledge and skills in the development and implementation of practical solutions to environmental and conservation biology problems

B2 Analyse and synthesise information relevant to the programme

B3 Define problems and devise and evaluate possible solutions, and to solve both routine and unfamiliar problems

B4 Integrate evidence from a range of sources to support findings and hypotheses

B5 Plan, execute and report on a project involving original research on location in the field

B6 Analyse critically published work in the field environmental protection

Subject-specific skills - students will be expected to:

C1 Identify and use safely appropriate laboratory and fieldwork methods

C2 Observe, record accurately and report laboratory and fieldwork activity

C3 Use spatial technologies in addressing problems efficiently

C4 Prepare technical reports and presentations

C5 Present research findings in a range of effective and appropriate formats

C6 Make effective use of the relevant academic literature and other sources of information

C7 Make effective use of IT and software packages relevant to the programme

Transferable skills - students will be expected to:

D1 Communicate effectively by oral, written and visual means

D2 Use IT including the Web, spread sheets and word processing

D3 Apply a range of basic statistical tests on experimental and fieldwork data

D4 Solve numerical problems using appropriate techniques

D5 Work in collaboration with others, including staff and students in a UK or global context

D6 Demonstrate problem-solving skills and the application of knowledge across discipline areas

D7 Identify and work towards targets for personal, career, and academic development through discussion with peers and maximising programme level and extra-curricular opportunities

D8 Be independent and reflective learners

LEVEL OUTCOMES

LEVEL 4 OUTCOMES - CertHE Ecology and Wildlife Conservation

Subject knowledge and understanding - students will be expected to have:

A1 A basic knowledge and understanding of the sciences relevant to Ecology and Wildlife Conservation

A2 An appreciation of nature and sources of UK and EU law and the role of environmental enforcement agencies

A3 An understanding of the scientific and human basis of a range of environmental issues

A4 A basic understanding of environmental investigative techniques

A5 An understanding of basic statistical methods

Intellectual Skills - students will be expected to:

B1 Analyse numerical data and identify appropriate statistical tests

B2 Identify key areas of the law as they affect land and the environment

B3 Identify and utilise appropriate information sources

B4 Demonstrate an awareness of the scientific method

B5 Recognise the origins and effects of different approaches to Ecology and Wildlife Conservation

Subject specific skills - students will be expected to:

C1 Observe, record accurately and report laboratory and fieldwork activity

C2 Use laboratory and fieldwork equipment to generate data

C3 Make use of literature relevant to the programme

C4 Write appropriately structured reports

Transferable skills - students will be expected to:

D1 Communicate effectively by oral, written and visual means

D2 Use IT including the Web, spread sheets and word-processing

D3 Apply a range of basic statistical tests to experimental and fieldwork data

- D4 Work in collaboration with others, including staff and students
- D5 Demonstrate problem-solving skills and the application of knowledge across discipline areas
- D6 Be independent and reflective learners

LEVEL 5 OUTCOMES - DipHE Ecology & Wildlife Conservation

Subject knowledge and understanding - students will be expected to have:

- A1 An appreciation of the inter-disciplinary and multi-disciplinary context of environmental problems
- A2 A knowledge and understanding of a range of scientific concepts relevant to Ecology and Wildlife Conservation
- A3 A knowledge of the current environmental regulatory framework and appreciation of the legal constraints on the regulatory bodies
- A4 A basic knowledge and understanding of environmental and project management
- A5 A knowledge of a range of research methods relevant to Ecology and Wildlife Conservation
- A6 A knowledge of specific statistical methods

Intellectual Skills - students will be expected to:

- B1 Apply scientific concepts to a range of situations in the context of Ecology and Wildlife Conservation
- B2 Collect data using methodologies consistent with good scientific practice
- B3 Evaluate the current regulatory framework
- B4 Apply theoretical knowledge and concepts to environmental management
- B5 Exercise judgment in using appropriate methods of data analysis and statistical methods

Subject specific skills - students will be expected to:

- C1 Use appropriately and safely laboratory and field equipment
- C2 Observe and record activity in the field and laboratory
- C3 Prepare technical reports and presentations
- C4 Make effective use of IT and software packages relevant to the programme

Transferable skills - students will be expected to:

- D1 Be reflective learners and analyse their strengths and weaknesses
- D2 Communicate effectively in both written and verbal form
- D3 Work effectively in teams

- D4 Demonstrate problem-solving skills
- D5 Apply a range of statistical tests to experimental and fieldwork data

LEVEL 6 OUTCOMES - BSc (Hons) Ecology & Wildlife Conservation

Subject knowledge and understanding - students will be expected to have:

- A1 A knowledge of the scientific, technical and regulatory framework within specialist areas of Ecology and Wildlife Conservation
- A2 A knowledge of key aspects of environmental impact evaluation and remediation methods
- A3 Detailed knowledge and understanding in the area of their chosen specialist areas

Intellectual Skills - students will be expected to:

- B1 Critically evaluate and review information from a range of sources
- B2 Apply appropriate research methodologies
- B3 Define problems, devise and evaluate possible solutions
- B4 Apply critically knowledge to specific situations

Subject specific skills - students will be expected to:

- C1 Plan, conduct and present an independent project with limited reliance on guidance
- C2 Relate investigations to prior work and reference appropriately
- C3 Be aware of health and safety issues within Ecology and Wildlife Conservation

Transferable skills - students will be expected to:

- D1 Undertake self-management & personal organisation (e.g. time management)
- D2 Work under pressure to meet deadlines
- D3 Communicate effectively
- D4 Demonstrate problems solving skills and the application of knowledge in their chosen specialist areas
- D5 Recognise and respect the views of others
- D6 Work effectively with others and independently

LEARNING AND TEACHING STRATEGIES AND METHODS

Teaching and learning will be delivered through combinations of lectures, seminars, practical work in the laboratory and field and small group tutorials. The exact combinations of these techniques will be unit specific, but there is a strong emphasis on small group tutorial learning in levels 4 and 5, particularly in

relation to academic skills. These sessions will help with skills learning, by providing sessions in a subject specific context, but also will also help focus on assessment strategies and provide formative feedback.

ASSESSMENT STRATEGIES AND METHODS

The assessment strategy is a blend of coursework and exam, with no units in the LES framework being assessed solely by examination, and in any semester the overall percentage of examination being < 50%. Coursework might consist of essays, research papers, presentations, posters and sometimes a number of smaller tasks, such as multiple choice tests, which also serve to provide formative feedback throughout a unit. In almost all cases, alternative assessments can be provided where there is convincing evidence from ALS (additional learning support). The majority of work will be submitted electronically and feedback provided through the VLE.

Programme Skills Matrix Ecology and Wildlife Conservation

<p>Subject knowledge and understanding - students will be expected to:</p> <p>A1 Understand relevant theories, concepts and principles relevant to the field of Ecology and Wildlife Conservation.</p> <p>A2 Have a detailed knowledge and understanding of the essential facts and theories in the student's chosen area of specialisation.</p> <p>A3 Place their scientific knowledge in Ecology and Wildlife Conservation within the UK, EC and global regulatory framework</p> <p>A4 Understand the multidisciplinary nature of the degree programme and the need to apply knowledge from a range of subject areas in addressing problems in Ecology and Wildlife Conservation.</p> <p>A5 Recognise the moral and ethical dimensions of their actions and the need for professional codes of conduct.</p> <p>A6 Have knowledge and understanding of management techniques relevant to Ecology and Wildlife Conservation.</p>	<p>Subject-specific skills - students will be expected to:</p> <p>C1 Identify and use safely appropriate laboratory and fieldwork methods.</p> <p>C2 Observe, record accurately and report laboratory and fieldwork activity.</p> <p>C3 Use spatial technologies in addressing problems efficiently.</p> <p>C4 Prepare technical reports and presentations.</p> <p>C5 Present research findings in a range of effective and appropriate formats.</p> <p>C6 Make effective use of the relevant academic literature and other sources of information.</p> <p>C7 Make effective use of IT and software packages relevant to the programme.</p>
<p>Intellectual Skills - students will be expected to:</p> <p>B1 Evaluate critically, and apply scientific knowledge and skills in the development and implementation of practical solutions to environmental and conservation biology problems.</p> <p>B2 Analyse and synthesise information relevant to the programme.</p> <p>B3 Define problems and devise and evaluate possible solutions, and to solve both routine and unfamiliar problems.</p> <p>B4 Integrate evidence from a range of sources to support findings and hypotheses.</p> <p>B5 Plan, execute and report on a project involving original research on location in the field</p> <p>B6 Analyse critically published work in the field environmental protection.</p> <p>.</p>	<p>Transferable skills - students will be expected to:</p> <p>D1 Communicate effectively by oral, written and visual means.</p> <p>D2 Use IT including the Web, spread sheets and word processing.</p> <p>D3 Apply a range of basic statistical tests on experimental and fieldwork data.</p> <p>D4 Solve numerical problems using appropriate techniques.</p> <p>D5 Work in collaboration with others, including staff and students in a UK or global context</p> <p>D6 Demonstrate problem-solving skills and the application of knowledge across discipline areas.</p> <p>D7 Identify and work towards targets for personal, career, and academic development through discussion with peers and maximising programme level and extra-curricular opportunities</p> <p>D8 Be independent and reflective learners</p>

Level	Unit	Core / Option	A1	A2	A3	A4	A5	A6	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	C5	C6	C7	D1	D2	D3	D4	D5	D6	D7	D8
6	Biological Oceanography	c	X	x				X	X					X	X	X	X	X	X	X	X	X	X	X	X				
6	Marine conservation	c	X	x	x			X	X	X				X	X	X	X	X	X	X	X	X	X	X	X	X			
6	Parasitology and Epidemiology	c	X	x				X	X	X									X	X	X	X	X	X	X				
6	Primate Behavioural Ecology	c	X	x				X	X	X									X	X	X	X	X	X	X				
6	Topics in Wildlife Conservation	c	X	x	x	x	x	X	X	X	X		X						X	X	X	X	X	X	X	X	X	X	X
6	Independent Research Project	c	X					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
6	Globalisation and sustainable development	c	X	x		x	X	X	X	X	X	X	X	X				X	X	X	X	X	X	X	X	X	X	X	X
6	Applied Biogeography	c	X					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
6	Climate and Environmental Change	c	X	x	x	x		X	X	X	X	X	X	X				X	X	X	X	X	X	X	X	X	X	X	X
6	Emergence & Extinction	c	X	x				X	X	X	X	X	X	X					X	X	X	X	X	X	X	X	X	X	X
6	Environmental law and management	c	X		x	x	X	X	X	X	X	X	X	X				X	X	X	X	X	X	X	X	X	X	X	X
6	Environmental Remote Sensing	c	X					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
6	Freshwater Resource Management	c	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5	Advanced Skills For Conservation	c						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5	Animal Biology	c	X	x		x	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5	Applications of Environmental Sciences	c	X	x	x	x		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5	Ecosystems	c	X	x				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5	Behavioural Ecology	c	X	x				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5	Wildlife Survey Skills	O	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5	Environmental and Societal Challenges	c	X				X	X	X	X	X	X	X	X					X	X	X	X	X	X	X	X	X	X	X
5	Evolutionary Biology	c	X	x				X	X	X	X	X	X	X					X	X	X	X	X	X	X	X	X	X	X
5	International Field Trip	c	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5	Microbiology	c	X	x				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5	Environmental Pollution	c	X	x				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5	Geographic Information Systems	c	X					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5	Marine Geography	c	X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5	Quaternary Environments	c	X	x				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4	Ecological Research Skills	c					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4	Ecology	c	X	x				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4	Physical Geography	c	X	x				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4	Diversity of Life	c	X	x				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4	Residential Field Trip	c				X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4	Wildlife protection	c	X	x	x	x	x	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

BSc (Hons) Environmental Science

Environmental Science integrates the natural sciences and geography, and considers how a wide range of factors may impact on the natural environment. It includes understanding of how both anthropogenic and natural forces result in environmental impacts such as climate change, ecosystem pollution and habitat loss. The study of Environmental Science also includes an appreciation of how technology and regulation can be applied to prevent environmental degradation and an awareness of practical remediation methods. Professionals working in the field of Environmental Science need to be able to combine an understanding of natural science with a knowledge of the legislative frameworks and the regulatory authorities for environmental protection and management.

Overall Programme Aims

This undergraduate programme aims to develop in its students the abilities to work in regulatory agencies, related industry and other organisations concerned with environmental science.

The primary aim of this course is the development of graduates who:

Have a critical understanding of the scientific, technical, and regulatory bases of environmental science

Have the necessary scientific, regulatory and management knowledge base to develop successful careers in specialist fields of environmental science

Can apply these skills to specific environmental problems, and also communicate effectively with both those working in the field of environmental science and with the wider public

Have the ability to carry out independent investigations in the area of environmental science

Have the skills and knowledge necessary for postgraduate study

The degree also aims to provide students with a substantial range of transferable skills in science laboratory practice, computing, data analysis, report writing and project management as a basis for professional activity and development which may be applicable in other career areas.

INTENDED LEARNING OUTCOMES

Overall Programme Outcomes

This programme provides opportunities for students to develop and demonstrate knowledge as follows:

Subject knowledge and understanding - students will be expected to:

A1 Understand relevant theories, concepts and principles relevant to the field of environmental science

A2 Have a detailed knowledge and understanding of the essential facts and theories in the student's chosen area of specialisation

A3 Place the scientific knowledge in environmental science within the UK and international frameworks

A4 Understand the multidisciplinary and international nature of the degree programme and the need to apply knowledge from a range of subject areas in addressing problems in environmental protection and management

A5 Recognise the moral and ethical dimensions of their actions and the need for professional codes of conduct

A6 Have knowledge and understanding of management techniques relevant to environmental science

Intellectual Skills - students will be expected to:

- B1** Evaluate critically, and apply scientific knowledge and skills in the development and implementation of practical solutions to environmental science problems
- B2** Analyse and synthesise information relevant to the programme
- B3** Define problems and devise and evaluate possible solutions, and to solve both routine and unfamiliar problems
- B4** Plan, execute and report on a project involving original research in laboratory and field settings
- B5** Integrate evidence from a range of sources to support findings and hypotheses
- B6** Analyse critically published work in the field environmental science

Subject-specific skills - students will be expected to:

- C1** Identify and use safely appropriate laboratory and fieldwork methods
- C2** Observe, record accurately and report laboratory and fieldwork activity
- C3** Use spatial technologies in addressing problems efficiently
- C4** Prepare technical reports and presentations
- C5** Present research findings in a range of effective and appropriate formats
- C6** Make effective use of the relevant academic literature and other sources of information
- C7** Make effective use of IT and software packages relevant to the programme

Transferable skills - students will be expected to:

- D1** Communicate effectively by oral, written and visual means
- D2** Use IT including the Web, spread sheets and word processing
- D3** Apply a range of basic statistical tests on experimental and fieldwork data
- D4** Solve numerical problems using appropriate techniques
- D5** Work in collaboration with others, including staff and students in a UK or global context
- D6** Demonstrate problem-solving skills and the application of knowledge across discipline areas
- D7** Identify and work towards targets for personal, career, and academic development through discussion with peers and maximising programme level and extra-curricular opportunities
- D8** Be independent and reflective learners

LEVEL OUTCOMES

LEVEL 4 OUTCOMES - CertHE Environmental Science

Subject knowledge and understanding - students will be expected to have:

- A1** A basic knowledge and understanding of the sciences relevant to environmental science
- A2** An appreciation of environmental regulation and enforcement
- A3** An understanding of the scientific and human basis of a range of environmental issues
- A4** A basic understanding of environmental investigative techniques
- A5** An understanding of basic statistical methods

Intellectual Skills - students will be expected to:

- B1** Analyse numerical data and identify appropriate statistical tests
- B2** Identify key areas of the law as they affect land and the environment
- B3** Identify and use appropriate information sources
- B4** Demonstrate an awareness of the scientific method
- B5** Recognise the different approaches and areas in environmental science

Subject specific skills - students will be expected to:

- C1** Observe, record accurately and report laboratory and fieldwork activity
- C2** Use laboratory and fieldwork equipment to generate data
- C3** Make use of literature relevant to the programme
- C4** Write appropriately structured reports

Transferable skills - students will be expected to:

- D1** Communicate effectively by oral, written and visual means
- D2** Use IT including the Web, spread sheets and word-processing
- D3** Apply a range of basic statistical tests to experimental and fieldwork data
- D4** Work in collaboration with others, including staff and students
- D5** Demonstrate problem-solving skills and the application of knowledge across discipline areas
- D6** Be independent and reflective learners

LEVEL 5 OUTCOMES - DipHE Environmental Science

Subject knowledge and understanding - students will be expected to have:

- A1** An appreciation of the inter-disciplinary and multi-disciplinary context of environmental problems
- A2** A knowledge and understanding of a range of scientific concepts relevant to environmental science

A3 A knowledge of the current environmental regulatory framework and appreciation of the legal constraints on the regulatory bodies

A4 A basic knowledge and understanding of environmental and project management

A5 A knowledge of a range of research methods relevant to environmental protection

A6 A knowledge of specific statistical methods

Intellectual Skills - students will be expected to:

B1 Apply scientific concepts to a range of situations in the context of environmental protection

B2 Collect data using methods consistent with good scientific practice

B3 Evaluate the current regulatory framework

B4 Apply theoretical knowledge and concepts to environmental management

B5 Exercise judgment in using appropriate methods of data analysis and statistical methods

Subject specific skills - students will be expected to:

C1 Use appropriately and safely laboratory and field equipment

C2 Observe and record activity in the field and laboratory

C3 Prepare technical reports and presentations

C4 Make effective use of IT and software packages relevant to the programme

Transferable skills - students will be expected to:

D1 Be reflective learners and analyse their strengths and weaknesses

D2 Communicate effectively in both written and verbal form

D3 Work effectively in teams

D4 Demonstrate problem-solving skills

D5 Apply a range of statistical tests to experimental and fieldwork data

LEVEL 6 OUTCOMES - BSc (Hons) Environmental Science

Subject knowledge and understanding - students will be expected to have:

A1 A knowledge of the legal and regulatory framework within specialist areas of environmental science

A2 A knowledge of environmental assessment methods and environmental management

A3 Detailed knowledge and understanding in the area of their chosen specialist areas

Intellectual Skills - students will be expected to:

- B1** Critically evaluate and review information from a range of sources
- B2** Apply appropriate research methods
- B3** Define problems, devise and evaluate possible solutions
- B4** Apply critically knowledge to specific situations

Subject specific skills - students will be expected to:

- C1** Plan, conduct and present a project with limited reliance on guidance
- C2** Relate investigations to prior work and reference appropriately
- C3** Be aware of health and safety issues in an environment context

Transferable skills - students will be expected to:

- D1** Undertake self-management & personal organisation (e.g. time management)
- D2** Work under pressure to meet deadlines
- D3** Communicate effectively
- D4** Demonstrate problems solving skills and the application of knowledge in their chosen specialist areas
- D5** Recognise and respect the views of others
- D6** Work effectively with others and independently

LEARNING AND TEACHING STRATEGIES AND METHODS

Teaching and learning will be delivered through combinations of lectures, seminars, practical work in the laboratory and field and small group tutorials. The exact combinations of these techniques will be unit specific, but there is a strong emphasis on small group tutorial learning in levels 4 and 5, particularly in relation to academic skills. These sessions will help with skills learning, by providing sessions in a subject specific context, but also will also help focus on assessment strategies and provide formative feedback.

ASSESSMENT STRATEGIES AND METHODS

The assessment strategy is a blend of coursework and exam, with no units in the LES framework being assessed solely by examination, and in any semester the overall percentage of examination being < 50%. Coursework might consist of essays, research papers, presentations, posters and sometimes a number of smaller tasks, such as multiple choice tests, which also serve to provide formative feedback throughout a unit. In almost all cases, alternative assessments can be provided where there is convincing evidence from ALS (additional learning support). The majority of work will be submitted electronically and feedback provided through myBU.

Environmental Sciences Programme Skills Matrix

<p>Subject knowledge and understanding - students will be expected to:</p> <p>A1 Understand relevant theories, concepts and principles relevant to the field of environmental science.</p> <p>A2 Have a detailed knowledge and understanding of the essential facts and theories in the student's chosen area of specialisation.</p> <p>A3 Place the scientific knowledge in environmental science within the UK and international frameworks.</p> <p>A4 Understand the multidisciplinary and international nature of the degree programme and the need to apply knowledge from a range of subject areas in addressing problems in environmental protection and management</p> <p>A5 Recognise the moral and ethical dimensions of their actions and the need for professional codes of conduct.</p> <p>A6 Have knowledge and understanding of management techniques relevant to environmental science.</p>	<p>Subject-specific skills - students will be expected to:</p> <p>C1 Identify and use safely appropriate laboratory and fieldwork methods.</p> <p>C2 Observe, record accurately and report laboratory and fieldwork activity.</p> <p>C3 Use spatial technologies in addressing problems efficiently.</p> <p>C4 Prepare technical reports and presentations.</p> <p>C5 Present research findings in a range of effective and appropriate formats.</p> <p>C6 Make effective use of the relevant academic literature and other sources of information.</p> <p>C7 Make effective use of IT and software packages relevant to the</p>
<p>Intellectual Skills - students will be expected to:</p> <p>B1 Evaluate critically, and apply scientific knowledge and skills in the development and implementation of practical solutions to environmental science problems.</p> <p>B2 Analyse and synthesise information relevant to the programme.</p> <p>B3 Define problems and devise and evaluate possible solutions, and to solve both routine and unfamiliar problems.</p> <p>B4 Plan, execute and report on a project involving original research in laboratory and field settings</p> <p>B5 Integrate evidence from a range of sources to support findings and hypotheses.</p> <p>B6 Analyse critically published work in the field environmental science. programme.</p>	<p>Transferable skills - students will be expected to:</p> <p>D1 Communicate effectively by oral, written and visual means.</p> <p>D2 Use IT including the Web, spread sheets and word processing.</p> <p>D3 Apply a range of basic statistical tests on experimental and fieldwork data.</p> <p>D4 Solve numerical problems using appropriate techniques.</p> <p>D5 Work in collaboration with others, including staff and students in a UK or global context</p> <p>D6 Demonstrate problem-solving skills and the application of knowledge across discipline areas.</p> <p>D7 Identify and work towards targets for personal, career, and academic development through discussion with peers and maximising programme level and extra-curricular opportunities</p> <p>D8 Be independent and reflective learners.</p>

Level	Unit	Core/Opt	A1	A2	A3	A4	A5	A6	B1	B2	B3	B4	B5	B6	C1	C3	C4	C5	C6	C7	D1	D2	D3	D4	D5	D6	D7	D8	
4	Chemistry	c				X				X					X	X			X		X	X		X					
4	Environmental Research Skills	c			X		X		X	X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4	Physical Geography	c		X		X				X	X				X	X	X		X		X	X		X					
4	Diversity of Life	c	X	X		X				X						X			X		X	X				X			
4	Fundamentals of environmental sciences	c	X	X	X	X		X		X	X				X	X	X		X		X	X	X	X		X			
4	Residential Field Trip	c			X	X				X	X	X	X		X	X	X		X		X	X	X	X	X	X			
5	Advanced Skills for Environmental Science	c	X		X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5	Applications of Environmental Sciences	c	X	X		X		X	X	X	X				X	X	X	X	X	X		X	X		X				
5	Ecosystems	o	X	X		X		X		X					X	X	X		X		X	X		X		X			
5	Behavioural Ecology	o				X				X	X				X				X	X		X	X	X	X		X		
5	Environmental and Societal Challenges	o			X	X	X		X	X	X				X				X	X		X	X			X	X	X	
5	International Field Trip	o			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X		
5	Microbiology	o				X				X					X	X	X		X	X		X	X			X			
5	Environmental Pollution	c	X	X	X			X		X					X	X	X		X	X		X	X	X	X	X			
5	Geographic Information Systems	o				X				X					X			X	X	X	X	X	X	X	X	X			
5	Marine Geography	o			X					X	X				X				X	X		X	X	X	X	X			
5	Quaternary Environments	o				X				X					X				X	X		X	X			X			
6	Biological Oceanography	o				X		X		X					X	X	X		X	X		X	X	X	X	X			
6	Marine conservation	o			X	X		X		X					X	X	X	X	X	X		X	X	X		X	X		
6	Topics in Wildlife Conservation	o				X		X		X	X				X	X			X	X		X	X			X	X	X	
6	Independent Research Project	c				X	X		X	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
6	Globalisation and sustainable development	o	X	X			X			X					X	X			X	X		X	X			X			
6	Applied Biogeography	o				X		X		X	X				X				X	X		X	X	X	X	X			
6	Climate and Environmental Change	o	X	X	X					X					X				X	X		X	X			X			
6	Earth surface processes and landforms	o				X				X					X				X	X		X	X			X			
6	Emergence & Extinction	o				X				X					X				X	X		X	X			X			
6	Environmental law and management	o	X	X		X	X	X		X					X				X	X		X	X			X			
6	Environmental Remote Sensing	o	X	X		X				X					X				X	X	X	X	X	X	X	X			
6	Freshwater Resource Management	o	X	X	X	X		X		X					X	X	X		X	X		X	X	X	X	X			

BSc (Hons) Geography

The pathway is designed to lay a sound foundation of geographical knowledge and the means by which it can be applied as an effective tool for understanding, resolving or mitigating societal, land use and landscape problems in the social, economic and physical spheres, but with a strong environmental focus. As such it provides a preparation for a wide range of practical and scientific roles in a number of related disciplines, including the environmental and landscape sciences, planning, land use management, development and conservation. The course also underpins a wide range of postgraduate study and professional development.

The primary aim of the course is the development of graduates who:

Have a sound understanding of the technical and analytical skills applicable to the field of geographical sciences

Can apply these skills to specific land use, landscape and environmental problems

Can communicate effectively with both the wider public and those working in the fields of geographical and environmental sciences, planning and resource management

Have the necessary scientific, regulatory and management knowledge-base to develop successful careers as professionals in relevant specialist fields

The degree also aims to provide students with a substantial range of transferable skills in report writing; computing; statistical sampling, application of spatial information systems, remote sensing, project management; fieldwork and data analysis and laboratory practice, as a basis for professional activity and development which may be applicable in other career areas.

INTENDED LEARNING OUTCOMES

Overall Programme Outcomes

This programme provides opportunities for students to develop and demonstrate knowledge as follows:

Subject knowledge and understanding - students will be expected to:

A1 Understand relevant philosophical approaches, concepts and principles underpinning contemporary geographical thought, with an emphasis on environment

A2 Have a detailed knowledge and understanding of the technical and analytical skills relevant to geographical science

A3 Understand the legal frameworks underpinning sustainable development at the global, European and local scale

A4 Have knowledge and understanding of relevant environmental management techniques

A5 Understand the multidisciplinary and international nature of the degree programme and the need to apply knowledge from a range of subject areas in addressing environmental management problems

A6 Define problems and devise and evaluate possible solutions, and to solve both routine and unfamiliar problems

A7 Recognise the moral and ethical dimensions of their actions and the need for professional codes of conduct

A8 Integrate evidence from a range of sources to support findings and hypotheses

Intellectual Skills - students will be expected to:

- B1** Evaluate critically, and apply scientific knowledge and skills in the development and implementation of practical solutions to environmental problems
- B2** Analyse and synthesise information relevant to the programme
- B3** Plan, execute and report on projects involving original research on location in the field
- B4** Integrate and evaluate data from a variety of sources
- B5** Analyse critically published work in the field of geography

Subject-specific skills - students will be expected to:

- C1** Identify and use safely appropriate laboratory and fieldwork methods
- C2** Observe, record and accurately report laboratory and fieldwork activity
- C3** Use spatial technologies in addressing problems efficiently
- C4** Prepare technical reports and presentations
- C5** Present research findings in a range of effective and appropriate formats
- C6** Make effective use of the relevant academic literature and other sources of information
- C7** Make effective use of IT and software packages relevant to the programme

Transferable skills - students will be expected to:

- D1** Communicate effectively by oral, written and visual means.
- D2** Use IT including the Web, spread sheets and word processing.
- D3** Apply a range of basic statistical tests on experimental and fieldwork data.
- D4** Solve numerical problems using appropriate techniques
- D5** Work in collaboration with others, including staff and students in a UK or global context
- D6** Demonstrate creativity in problem-solving and the application of knowledge across discipline areas
- D7** Identify and work towards targets for personal, career, and academic development through discussion with peers and maximising programme level and extra-curricular opportunities
- D8** Be independent and reflective learners

LEVEL OUTCOMES

LEVEL 4 OUTCOMES - CertHE Geography

Subject knowledge and understanding - students will be expected to have:

- A1** A basic knowledge and understanding of earth and environmental systems
- A2** Knowledge and understanding of range of philosophical approaches, concepts and principles that underlie the geographical discipline
- A3** An understanding of the origin and nature of environmental issues and the interrelationships between the physical and human environments
- A4** A basic understanding of the range of investigative techniques (instrumentation, remote sensing, land surveying, social survey, observation, textual and archive sources, etc) relevant to the subject
- A5** A competence in the acquisition of basic geographical data sets, their analysis and forms of presentation
- A6** Knowledge of the legal frameworks within which the environment and issues that surround it are managed

Intellectual Skills - students will be expected to:

- B1** Demonstrate a geographical perspective and understanding through effectively communication of ideas, principles and theories
- B2** Recognise the origins, diversity and effects of different geographical approaches to problem-solving
- B3** Analyse quantitative and qualitative data, identify appropriate statistical tests and other mathematical procedures
- B4** Identify key areas of the law as they affect land-use management and the environment
- B5** Identify and utilise appropriate information sources
- B6** Demonstrate an understanding and awareness of the scientific method

Subject specific skills - students will be expected to:

- C1** Observe, record accurately and report laboratory and fieldwork activity
- C2** Use laboratory and fieldwork equipment to generate data
- C3** Make use of literature relevant to the programme
- C4** Write appropriately structured reports

Transferable skills - students will be expected to:

- D1** Communicate effectively by oral, written and visual means

- D2** Use IT including the Web, spread sheets and word-processing
- D3** Apply a range of basic statistical tests to experimental and fieldwork data, and understand other relevant mathematical procedures in the processing of data
- D4** Work in collaboration with others, including staff and students
- D5** Demonstrate problem-solving skills and the application of knowledge across discipline areas
- D6** Be independent and reflective learners

LEVEL 5 OUTCOMES - DipHE Geography

Subject knowledge and understanding - students will be expected to have:

- A1** An appreciation of the nature of change in the human and physical environments
- A2** An appreciation of sense of place, and the spatial relationships between places and between regions at a variety of scales
- A3** An appreciation of the inter-disciplinary and multi-disciplinary context of problems in the human and physical environments
- A4** A knowledge and understanding of a range of scientific concepts relevant to environmental management
- A5** A knowledge of the current legal framework controlling land use and development in the UK and an appreciation of the role of regulatory and other environmental bodies
- A6** A basic knowledge and understanding of the operation of public and private environmental organisations, and of the principles of environmental and project management
- A7** A knowledge of a range of research methods relevant to resource management and environmental protection including an understanding of the principles of GIS and knowledge of specific statistical methods

Intellectual Skills - students will be expected to:

- B1** Apply understanding of scientific and geographical concepts to a range of situations
- B2** Question and probe the contested and provisional nature of knowledge and understanding
- B3** Identify and evaluate approaches to problem-solving and risk management
- B4** Collect data using methods/methodologies consistent with good geographical practice
- B5** Evaluate the current legal frameworks for land-use planning and environmental protection
- B6** Apply theoretical knowledge and concepts to environmental management
- B7** Exercise judgment in using appropriate methods of data analysis and statistical methods and demonstrate understanding of the diversity of techniques and approaches in the presentation of geographical information (GIS, cartography)

Subject specific skills - students will be expected to:

- C1** Use appropriately and safely laboratory and field equipment
- C2** Observe and record activity in the field and laboratory
- C3** Prepare technical reports and presentations
- C4** Make effective use of IT and software packages relevant to the programme

Transferable skills - students will be expected to:

- D1** Be reflective learners and analyse their strengths and weaknesses
- D2** Communicate and argue effectively in both written and verbal form
- D3** Work effectively in teams
- D4** Demonstrate problem-solving skills
- D5** Apply a range of statistical tests to experimental and fieldwork data
- D6** Have competence in the use of more specialised C&IT skills, in particular GIS and CAD

LEVEL 6 OUTCOMES - BSc (Hons) Geography

Subject knowledge and understanding - students will be expected to have:

- A1** An ability to review and creatively apply geographical principles, knowledge and processes and skills to the resolution or mitigation of real world problems
- A2** A knowledge of key aspects of environmental impact assessments and the UK planning system
- A3** Detailed knowledge and understanding in the area of their chosen specialist areas

Intellectual Skills - students will be expected to:

- B1** Apply original ideas to new situations by building upon the strengths and weaknesses in the arguments of others
- B2** Critically evaluate and review information from a range of sources
- B3** Apply appropriate research methodologies and undertake independent learning to achieve proficient and sustained attainment
- B4** Define problems, devise and evaluate possible solutions
- B5** Apply critically knowledge to specific situations

Subject specific skills - students will be expected to:

- C1** Plan, conduct and present an independent project with limited reliance on guidance

- C2** Relate investigations to prior work and reference appropriately
- C3** Demonstrate a knowledge of a repertoire of geographical research skills and the appropriate applications of these skills
- C4** Be aware of health and safety issues within geographical based activities

Transferable skills - students will be expected to:

- D1** Be competent in self-management & personal organisation (e.g. time management)
- D2** Work under pressure to meet deadlines
- D3** Communicate effectively
- D4** Demonstrate problem-solving skills and the application of knowledge in their chosen specialist areas
- D5** Recognise and respect the views of others
- D6** Work effectively with others and independently

LEARNING AND TEACHING STRATEGIES AND METHODS

Teaching and learning will be delivered through combinations of lectures, seminars, practical work in the laboratory and field and small group tutorials. The exact combinations of these techniques will be unit specific, but there is a strong emphasis on small group tutorial learning in levels 4 and 5, particularly in relation to academic skills. These sessions will help with skills learning, by providing sessions in a subject specific context, but also will also help focus on assessment strategies and provide formative feedback.

ASSESSMENT STRATEGIES AND METHODS

The assessment strategy is a blend of coursework and exam, with no units in the LES framework being assessed solely by examination, and in any semester the overall percentage of examination being < 50%. Coursework might consist of essays, research papers, presentations, posters and sometimes a number of smaller tasks, such as multiple choice tests, which also serve to provide formative feedback throughout a unit. In almost all cases, alternative assessments can be provided where there is convincing evidence from ALS (additional learning support). The majority of work will be submitted electronically and feedback provided through myBU.

Geography Programme Skills Matrix

<p>Subject knowledge and understanding - students will be expected to:</p> <p>A1 Understand relevant philosophical approaches, concepts and principles underpinning contemporary geographical thought, with an emphasis on environment.</p> <p>A2 Have a detailed knowledge and understanding of the technical and analytical skills relevant to geographical science.</p> <p>A3 Understand the legal frameworks underpinning sustainable development at the global, European and local scale.</p> <p>A4 Have knowledge and understanding of relevant environmental management techniques.</p> <p>A5 Understand the multidisciplinary and international nature of the degree programme and the need to apply knowledge from a range of subject areas in addressing environmental management problems</p> <p>A6 Define problems and devise and evaluate possible solutions, and to solve both routine and unfamiliar problems.</p> <p>A7 Recognise the moral and ethical dimensions of their actions and the need for professional codes of conduct.</p> <p>A8 Integrate evidence from a range of sources to support findings and hypotheses.</p>	<p>Intellectual Skills - students will be expected to:</p> <p>B1 Evaluate critically, and apply scientific knowledge and skills in the development and implementation of practical solutions to environmental problems.</p> <p>B2 Analyse and synthesise information relevant to the programme.</p> <p>B3 Plan, execute and report on projects involving original research on location in the field</p> <p>B4 Integrate and evaluate data from a variety of sources.</p> <p>B5 Analyse critically published work in the field of applied geography.</p>
<p>Subject-specific skills - students will be expected to:</p> <p>C1 Identify and use safely appropriate laboratory and fieldwork methods.</p> <p>C2 Observe, record and accurately report laboratory and fieldwork activity.</p> <p>C3 Use spatial technologies in addressing problems efficiently.</p> <p>C4 Prepare technical reports and presentations.</p> <p>C5 Present research findings in a range of effective and appropriate formats</p> <p>C6 Make effective use of the relevant academic literature and other sources of information.</p> <p>C7 Make effective use of IT and software packages relevant to the programme.</p>	<p>Transferable skills - students will be expected to:</p> <p>D1 Communicate effectively by oral, written and visual means.</p> <p>D2 Use IT including the Web, spread sheets and word processing.</p> <p>D3 Apply a range of basic statistical tests on experimental and fieldwork data.</p> <p>D4 Solve numerical problems using appropriate techniques.</p> <p>D5 Work in collaboration with others, including staff and students in a UK or global context</p> <p>D6 Demonstrate creativity in problem-solving and the application of knowledge across discipline areas.</p> <p>D7 Identify and work towards targets for personal, career, and academic development through discussion with peers and maximising programme level and extra-curricular opportunities</p> <p>D8 Be independent and reflective learners.</p>

LVL	Unit	C/O	A 1	A 2	A 3	A 4	A 5	A 6	A 7	A 8	B 1	B 2	B 3	B 4	B 5	C 1	C 2	C 3	C 4	C 5	C 6	C 7	D 1	D 2	D 3	D 4	D 5	D 6	D 7	D 8
4	Geographic Research Skills	C	x				x		x	x	x	x	x	x	x				x	x	x	x	x	x	x	x			x	x
4	Physical Geography	C	x				x	x		x	x	x		x	x	x	x	x	x	x	x		x	x						
4	Practical Skills in Geography	C		x			x					x		x		x	x	x		x	x	x	x	x	x	x				x
4	Earth and Society	C	x		x	x	x		x	x	x	x		x	x					x	x		x	x						x
4	Human Geography	C	x		x		x	x	x	x	x	x		x	x					x	x		x	x						
4	Residential Field Trip	C		x		x	x				x	x	x	x		x	x		x	x	x		x		x	x	x	x		x
5	Advanced Skills for Geography	C		x			x		x	x	x	x	x	x	x			x	x	x	x	x	x	x	x	x	x		x	x
5	Geographic Information Systems	C		x			x	x		x	x	x		x	x			x	x	x	x	x	x	x						
5	Marine Geography	C			x	x	x	x		x	x	x		x	x				x	x	x		x	x	x					
5	Applications of Environmental Sciences	O	x		x		x			x	x	x		x	x	x	x	x	x	x	x		x	x	x	x		x		
5	Quaternary Environments	O	x				x			x	x	x		x	x	x	x		x	x	x		x	x		x		x		
5	Ecosystems	O	x			x	x			x	x	x		x	x	x	x		x	x	x		x	x						
5	Environmental & Societal Challenges	O	x		x		x	x		x	x	x	x	x	x				x	x	x		x	x				x	x	x
5	International Field Trip	O	x		x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x		
5	Understanding Globalisation	O	x				x			x	x	x		x	x				x	x	x		x	x		x		x		
5	Environmental Pollution	O	x		x	x	x	x		x	x	x		x	x	x	x		x	x	x		x	x	x	x				
5	Urban Social Geography	O	x				x		x	x	x	x	x	x	x					x	x		x	x			x	x	x	x
6	Independent Research Project	C	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
6	Applied Biogeography	O		x		x	x	x		x	x	x	x	x	x			x	x	x	x	x	x	x	x	x		x		
6	Biological Oceanography	O	x			x	x	x		x	x	x		x	x	x	x		x	x	x		x	x	x	x		x		
6	Climate & Environmental Change	O	x		x		x			x	x	x	x	x	x				x	x	x		x	x	x	x		x		
6	Cultural Ecology	O	x				x			x	x	x		x	x				x	x	x		x	x				x		
6	Earth Surface Processes & Landforms	O	x				x			x	x	x		x	x				x	x	x		x	x				x		
6	Emergence & Extinction	O	x				x			x	x	x		x	x				x	x	x		x	x				X		
6	Environmental Law	O			x	x	x	x	x	x	x	x		x	x				x	x	x		x	x				X		
6	Environmental Remote Sensing	O		x			x			x	x	x		x	x			x	x	x	x	x	x	x	x	x		x		
6	Freshwater Resource Management	O		x	x	x	x	x		x	x	x	x	x	x	x	x		x	x	x		x	x	x	x		X		
6	Globalisation & Sustainable Development	O	x		x	x	x	x		x	x	x		x	x				x	x	x		x	x				X		
6	Marine Conservation	O	x			x	x	x		x	x	x		x	x	x	x	x	x	x	x		x	x	x	x	x	x		
6	Wildlife and Ecotourism	O	x			x	x	x		x	x	x		x	x				x	x	x		x	x				x		
6	Contemporary Topics in Geography	O	x	x		x	x	x		x	x	x		x	x				x	x	x		x	x			x	x		x

BSc (Hons) Marine Ecology and Conservation – Top-up

This course builds directly on foundation courses, and provides a university experience and opportunity to co-create research with academics in the discipline. It provides new legislative contexts for conservation, as well as further fieldwork opportunities and chances to learn about ecology of charismatic megafauna.

Specifically this course aims to:

- Introduce new contexts for understanding conservation in the marine environment, such as UK habitat directives and legislation and policy frameworks
- Provide opportunities to deliver in depth understanding of subjects of general public interest in marine biology, such as marine mammals
- Provide a smooth transition to a University research environment, and opportunities to co-create research through the Independent Research Project

INTENDED LEARNING OUTCOMES

Note, the course outcomes are provided only, as this course only consists of level 6.

- A1** Understand theories, concepts and principles relevant to a range of different fields within marine ecology and conservation, and, in particular, an appreciation of the complexity of interactions in the marine environment
- A2** Be aware of current themes, debates and concerns, and of the contribution of marine ecology to current debates and controversies at a local, national and international level
- A3** Demonstrate an ability to read and use appropriate literature with an expanded and critical understanding, while addressing such questions as content, context, aims, objectives, quality of information, and its interpretation and application
- A4** Recognise the moral, ethical and legal dimensions of the discipline and how to apply these for effective conservation

Intellectual Skills - students will be expected to:

- B1** Evaluate critically, and apply scientific knowledge and skills in the development and implementation of practical solutions to problems
- B2** Analyse and synthesise information relevant to the programme
- B3** Define problems and devise and evaluate possible solutions, and to solve both routine and unfamiliar problems
- B4** Integrate evidence from a range of sources to support findings and hypotheses
- B5** Plan, execute and report on a project involving original or directed research in the laboratory or field

Subject-specific skills - students will be expected to:

- C1** Identify and use safely appropriate laboratory and fieldwork methods
- C2** Present research findings in a range of effective and appropriate formats
- C3** Make effective use of the relevant academic literature and other sources of information

- C4** Critically analyse and synthesise research data from a wide range of sources and draw conclusions
C5 Reflect on their own experiences and learning within their subject areas and apply this learning to planning their careers and extra-curricular opportunities

Transferable skills - students will be expected to:

- D1** Communicate effectively by oral, written and visual means
D2 Solve numerical problems using appropriate techniques
D3 Work in collaboration with others, including staff and other students, in the UK or internationally
D4 Demonstrate problem solving skills and the application of knowledge across discipline areas
D5 Be independent and reflective learners.

Marine ecology and Conservation Programme Skills Matrix

Level	Unit	Core/Opt	A1	A2	A3	A4	B1	B2	B3	B4	B5	C1	C2	C3	C4	C5	D1	D2	D3	D4	D5	
6	Marine conservation	c	x	x	x	x	x	x		x		x	x	x	x		x		x		x	
6	Independent Research Project	c	x		x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
6	Environmental law and management	o	x		x	x	x	x		x			x	x		x	x		x	x	x	
6	Marine Mammal Ecology and Behaviour	c	x	x	x	x	x	x		x			x	x			x		x		x	
6	Marine Field Study Techniques	c	x		x		x	x	x	x		x	x	x	x		x	x	x	x		
6	Freshwater Resource Management	o			x	x	x	x	x	x		x	x	x	x		x	x	x	x	x	
6	Biological Oceanography	o	x	x	x		x	x	x		x	x	x	x	x		x	x	x	x	x	

LEARNING AND TEACHING STRATEGIES AND METHODS

Teaching and learning will be delivered through combinations of lectures, seminars, practical work in the laboratory and field and small group tutorials. The exact combinations of these techniques will be unit specific, but there is a strong emphasis on small group tutorial learning in levels 4 and 5, particularly in relation to academic skills. These sessions will help with skills learning, by providing sessions in a subject specific context, but also will also help focus on assessment strategies and provide formative feedback.

ASSESSMENT STRATEGIES AND METHODS

The assessment strategy is a blend of coursework and exam, with no units in the LES framework being assessed solely by examination, and in any semester the overall percentage of examination being < 50%. Coursework might consist of essays, research papers, presentations, posters and sometimes a number of smaller tasks, such as multiple choice tests, which also serve to provide formative feedback throughout a unit. In almost all cases, alternative assessments can be provided where there is convincing evidence from ALS (additional learning support). The majority of work will be submitted electronically and feedback provided through myBU.

WORK-BASED LEARNING (WBL) / PLACEMENTS ELEMENTS

Work-based learning requirements are met through professional practice placements (see Placement Handbook – note this is the existing placement handbook for the Applied Sciences framework – students on the LES framework will not undertake placements in the next academic year). From 2013 all Bournemouth University programmes offer an optional minimum 30-week placement which forms the third year of a four-year sandwich degree, and this option is provided in the proposed programme and the entire framework. In addition to this, many undergraduate degree programmes require students to undertake a short placement of a minimum of 25 working days which will normally run during the summer between years 1 and 2 and is ratified as part of Level 5 of the programme. Students who do not enrol on a 4-year degree will complete a second short placement between the second and final years of their study.

Explanatory note on process: All students will enrol on a 3-year course in their first year of study. They can then opt to undertake a 4-year degree which includes the placement year of a minimum of 30 weeks. The decision to undertake a placement year has to be made ideally at the end of the first year, at the latest in Semester 2 of Level 5. Students who do not wish to do a placement year will have to pass short placement(s) of 5 weeks' duration on those courses which offer them. Students wishing to progress onto a 4-year course will have to pass one short placement between Level 4 and Level 5. Ratification of pass/fail for the short placement will take place as early as possible during Level 5. Failure to pass the short placement forfeits the option to progress to the placement year.

Placements involve the completion of activities/projects and are assessed via a portfolio of evidence, including logs/diaries and reflective essays, collated over the placement period and assessed as either pass or fail depending on whether the portfolio is complete. This evidence will include a satisfactory host report. Placements are not credit-weighted and are normally unpaid, although some employers may offer expenses. In the past, a number of students have secured placements through the STEP project, which guarantees payment for an eight-week placement.

Placements can be undertaken in any part of the UK or abroad (any additional cost borne by the student) and are approved by the Faculty on the basis of the registration details provided by the student. Students are expected to be proactive at every stage of researching and obtaining appropriate placement offers. Their efforts are supported throughout by the Placement and Programmes Co-ordinator, who provides guidance and brings opportunities to the attention of students. Throughout Level 4 (Year 1) and Level 5 (Year 2), students are counselled on work experience opportunities and personal development activities are provided to enable students to produce a CV, complete application forms, compile and maintain a portfolio and develop interview and presentation skills.

The framework team already have a wide range of external links to potential placement organisations and a searchable database of placement hosts is available to students.. A wide range of hosts is available to reflect the diverse interests of the students studying on different programmes.

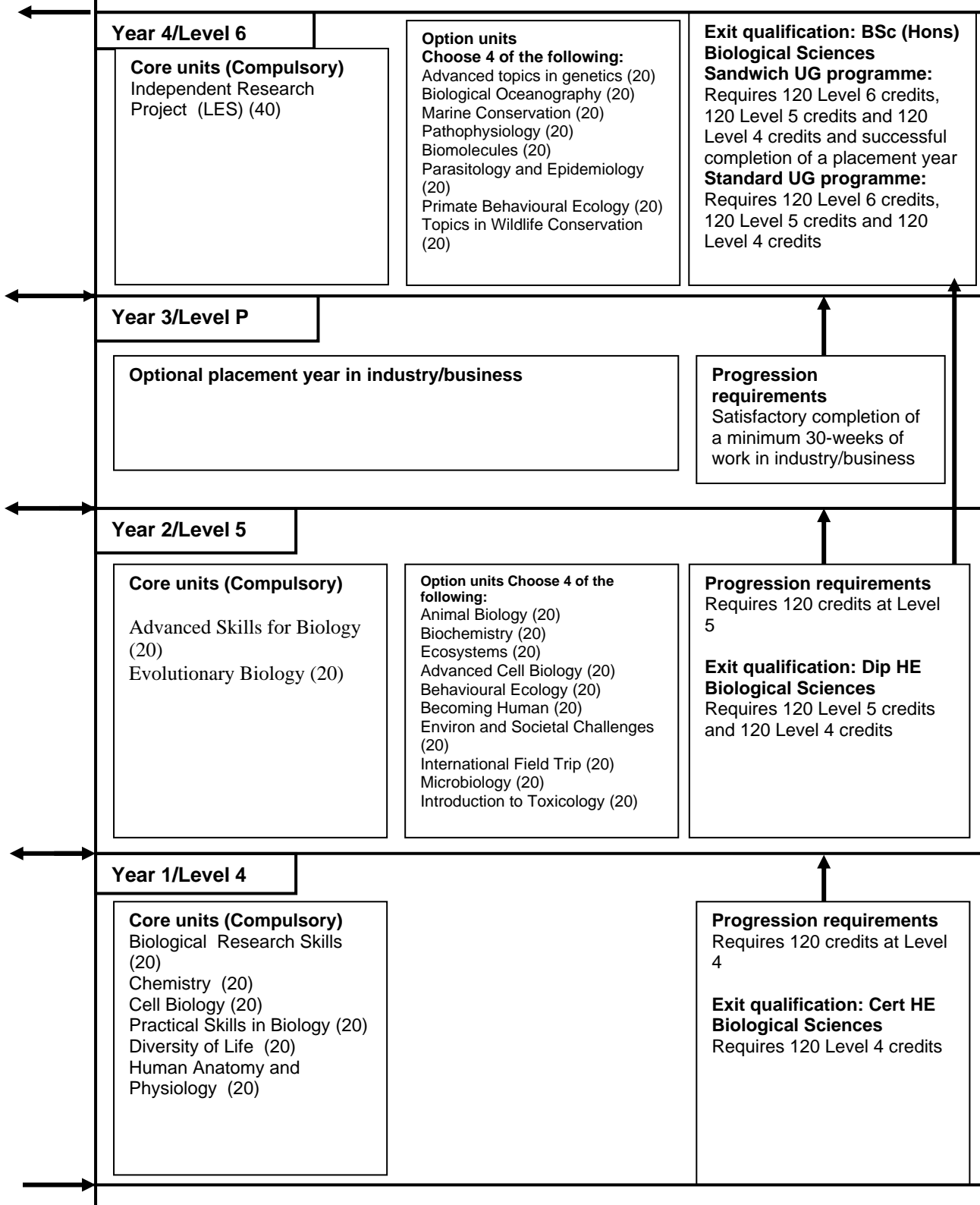
The placement aims to provide students with:

- A wider experience within practice plus a detailed knowledge of an area of discipline within which the student may wish to work once graduated
- An understanding of the inter-relationship of practitioner and management skills in the context of the host organisation
- An opportunity to apply the knowledge and skills, gained from studies, in the work environment
- An experience of work roles, practices and procedures, working relationships and interpersonal communications, employment, working hours and practical constraints, within the working environment
- An opportunity to develop personal and career plans in the light of the experiences derived from the placement.

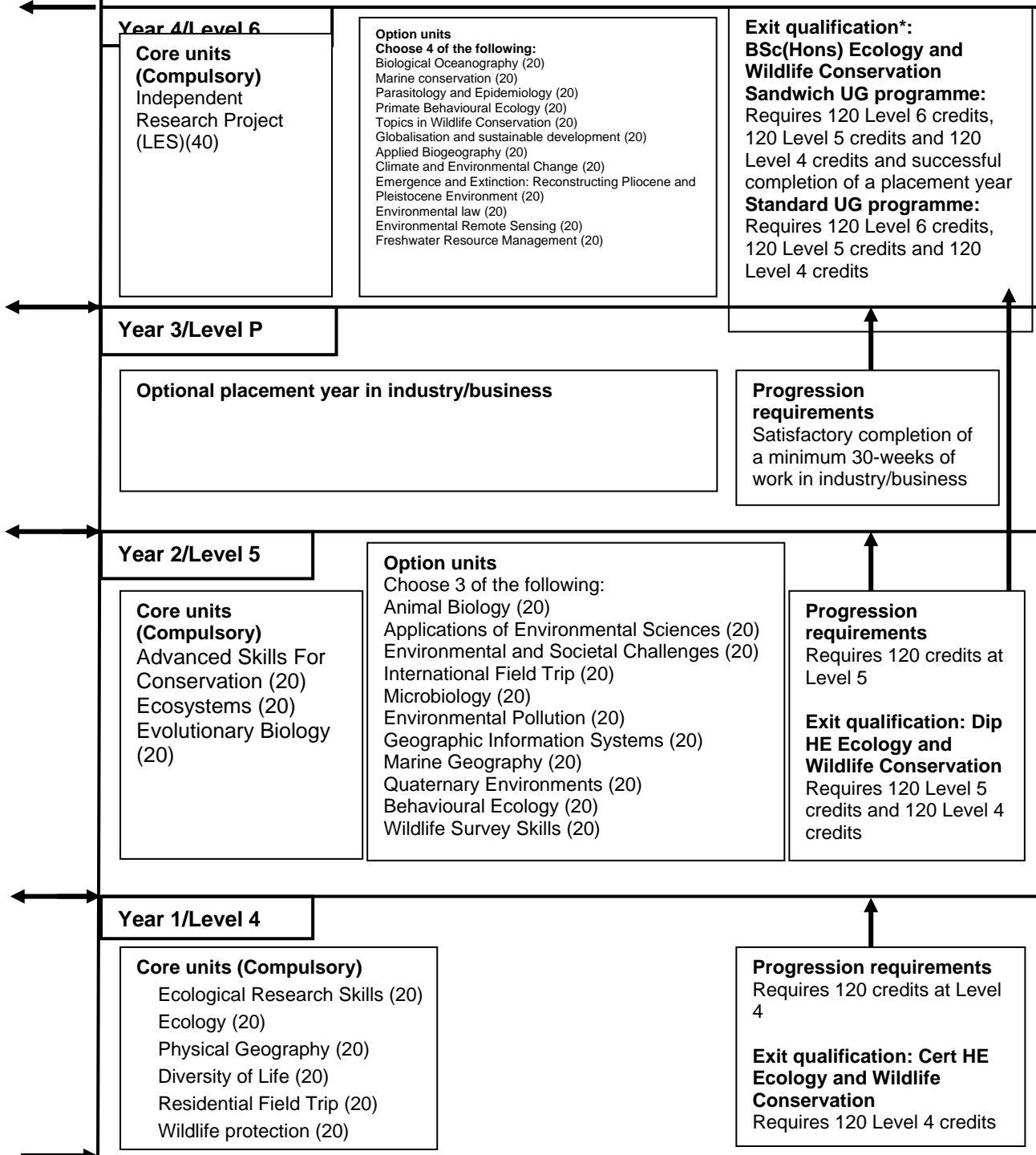
The placement thus provides students with the experience of how an organisation operates, as well as an opportunity to enhance their personal development and future employability. The placements play an important role within the degree structure, complementing the academic programme and allow students to begin to put theory and competencies into practice as well as develop new skills. The placements especially

articulate with the research skills unit at Level 4, along with Field Work and field trips and similar units at Level 4 and 5 and may also articulate with the Research Project at Level 6. The overall placement experience also provides an excellent unique selling point for student CVs and future employment.

PROGRAMME DIAGRAM BSc (Hons) Biological Sciences

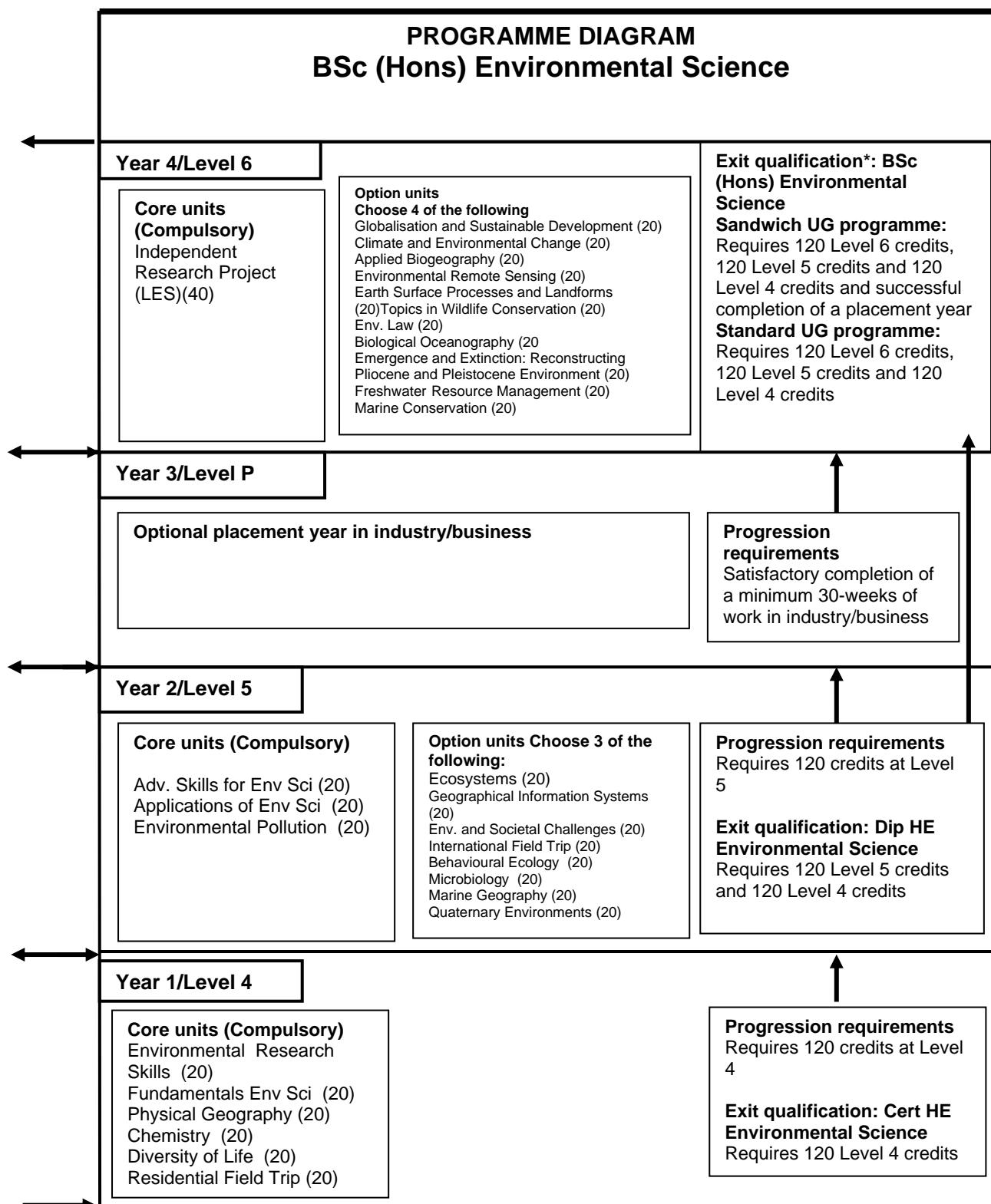


PROGRAMME DIAGRAM BSc (Hons) Ecology and Wildlife Conservation



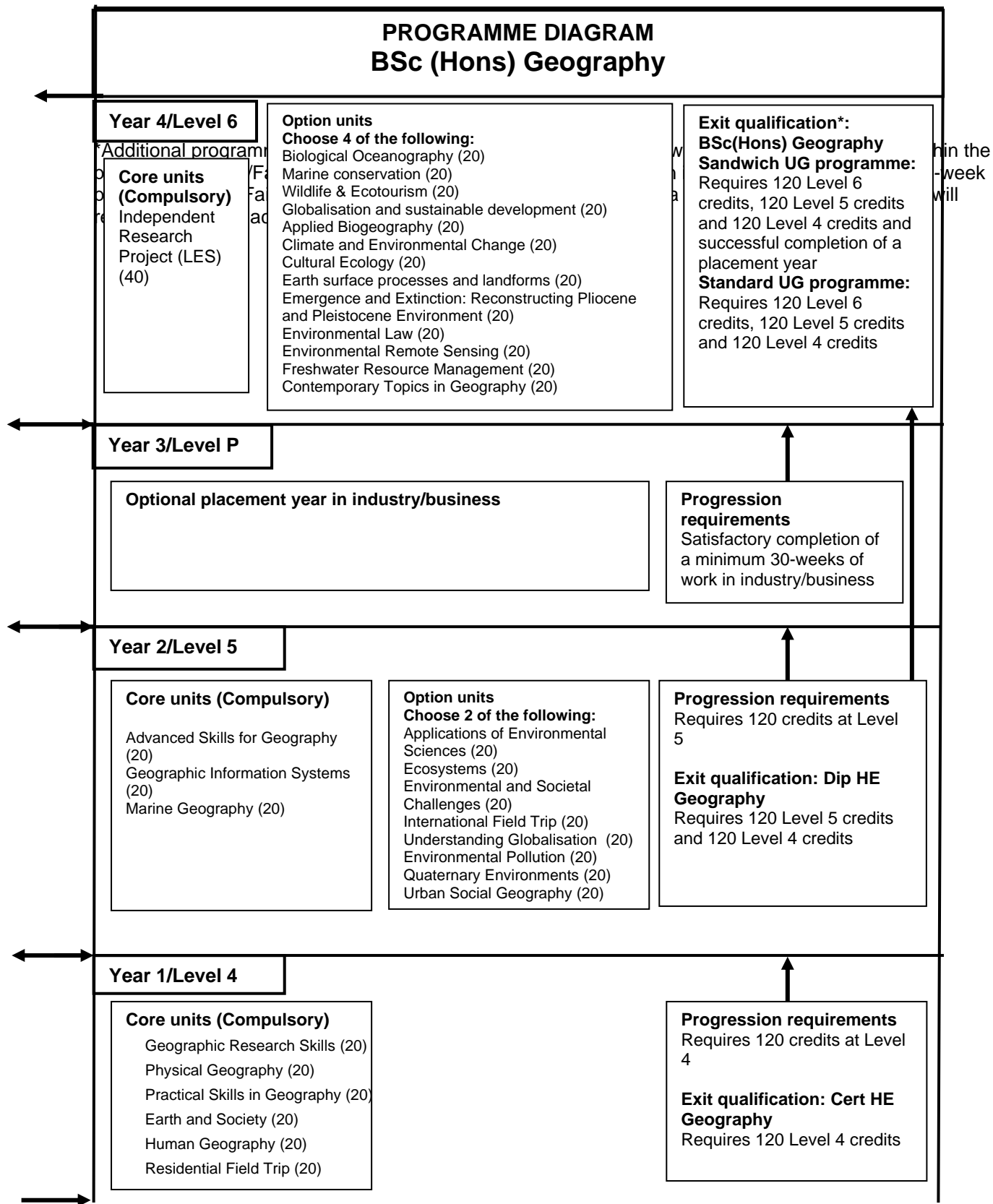
*Additional programme exit requirement: two short placements of 5 weeks duration at any point within the programme (Pass/Fail) OR one short placement of 5 weeks duration in addition to the minimum 30-week placement (Pass/Fail). Failure of a placement which is specified as a programme exit requirement will require a repeat placement/alternative placement.

PROGRAMME DIAGRAM BSc (Hons) Environmental Science



*Additional programme exit requirement: two short placements of 5 weeks duration at any point within the programme (Pass/Fail) OR one short placement of 5 weeks duration in addition to the minimum 30-week placement (Pass/Fail). Failure of a placement which is specified as a programme exit requirement will require a repeat placement/alternative placement.

PROGRAMME DIAGRAM BSc (Hons) Geography



PROGRAMME DIAGRAM

BSc (Hons) Marine Ecology and Conservation (Level 6 Top-Up)

Year 1/Level 6

Core units (Compulsory)

Marine conservation (20)
Independent Research
Project (LES) (40)
Marine Mammal Ecology and
Behaviour (20)
Marine Field Study
Techniques (20)

Option units

Choose 1 of the following:

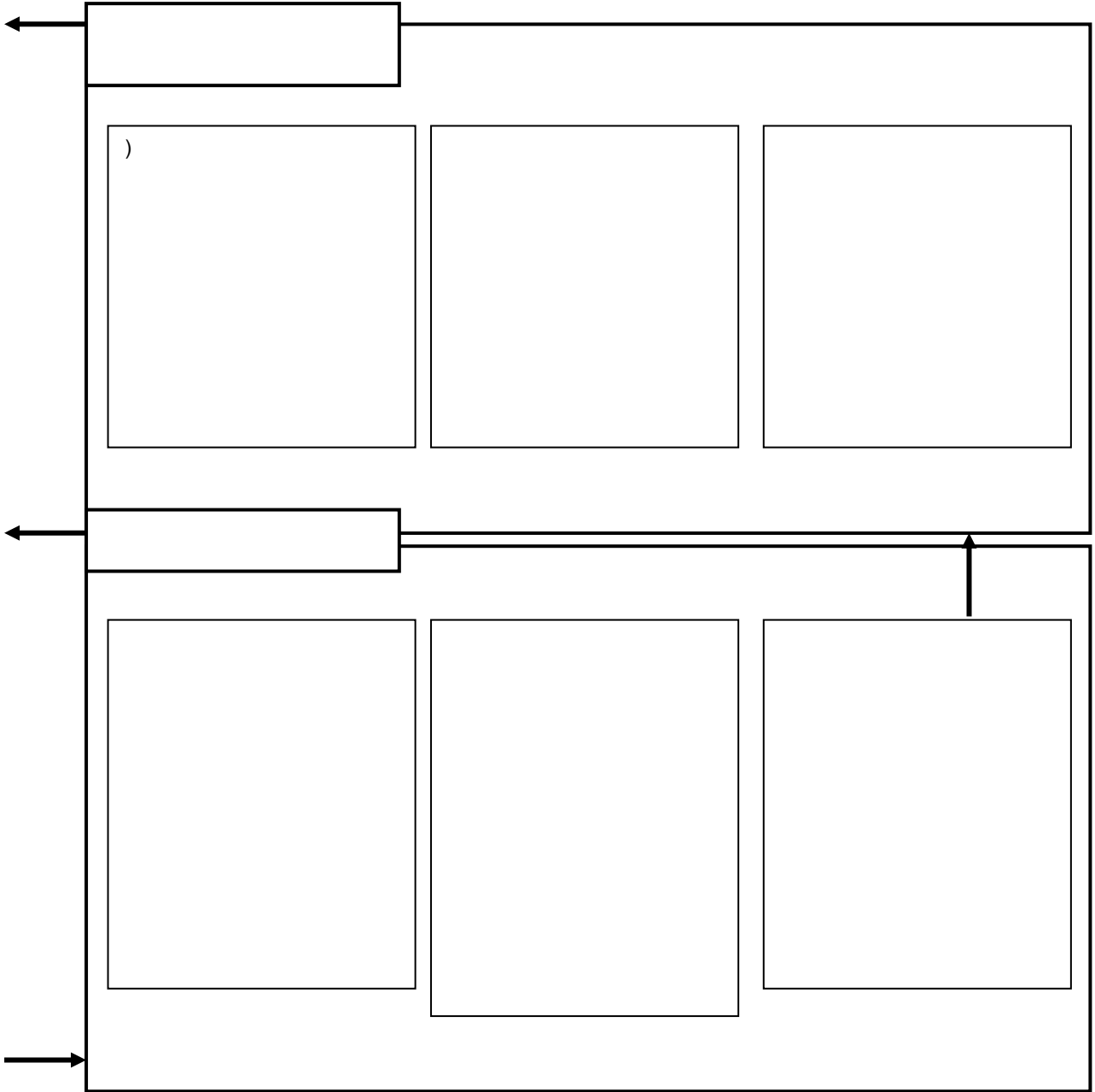
Environmental law (20)
Freshwater Resource
Management (20)
Biological Oceanography
(20)

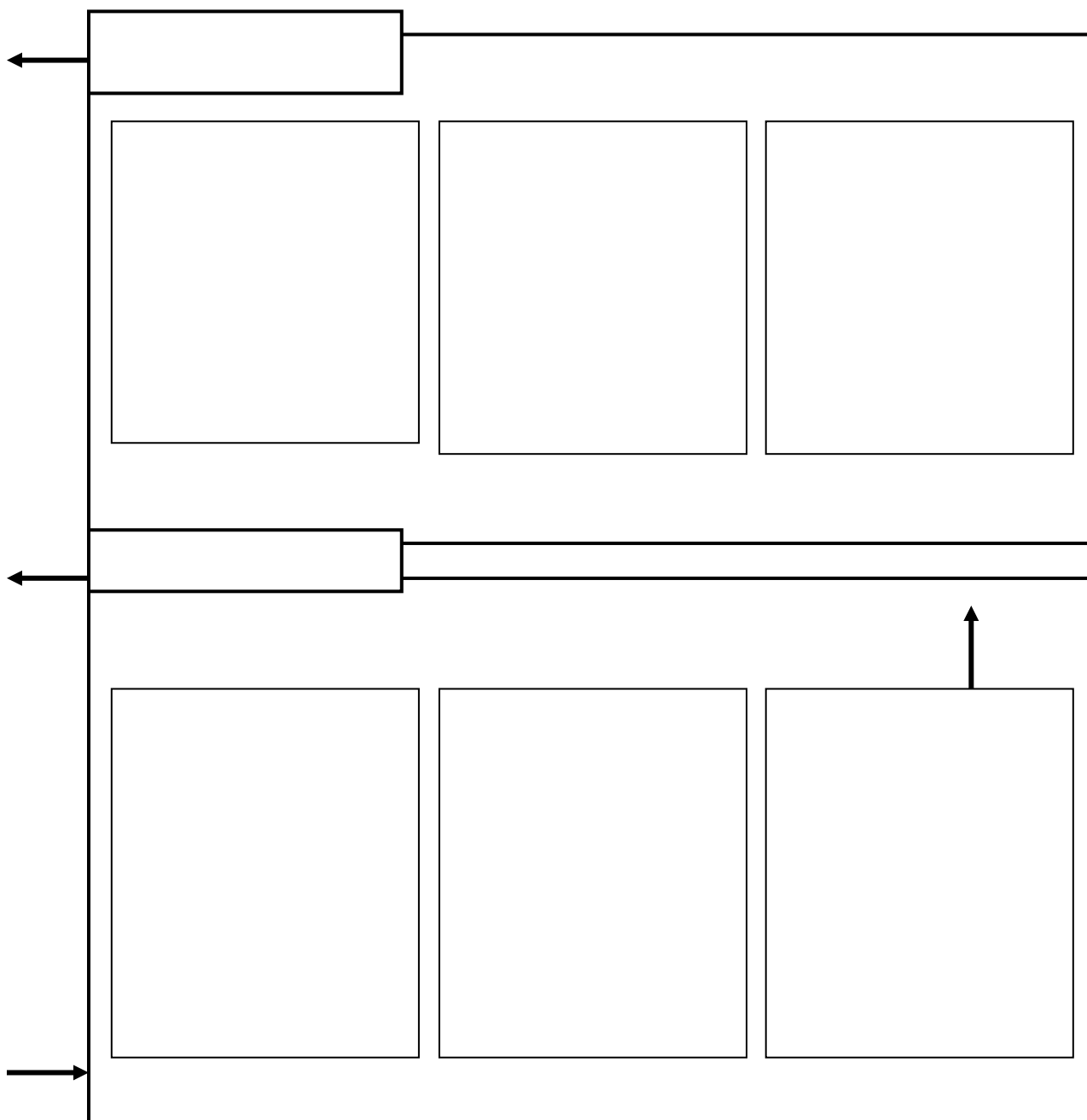
**Exit qualification:
BSc(Hons) Marine
Ecology and
Conservation**

Requires 120 Level 6 credits
120 Level 5 Credits and 120
level 4 Credits

6 level entry

**On attainment of an overall Pass, Merit or
Distinction profile from FdSc Marine Ecology
and Conservation**





PROGRAMME PROFILES

Originating Institution(s): BU		Place(s) of Delivery: BU Talbot		Framework Title (in full): Life and Environmental Sciences				Mode(s) of Study ¹ : FT/PT								
School/Faculty: SciTech		Language of Delivery (<i>if not English</i>):		Programme Award and Title: BSc (Hons) Biological Sciences				Expected Length of Study ² : 3 years FT/ 6 years PT								
Partner: n/a		Programme HESA HECoS code:		Interim Award and Titles & Required Credits: CertHE Biological Sciences (120 credits), DipHE Biological Sciences (240 credits)				BU Credit Structure & ECTS ³ : Level 6 120 (60ECTS) Level 5 120 (60 ECTS), Level 4 120 (60 ECTS)								
Unit identification		Cost Centre(s) ⁴						Unit Details						Assessment Regs ⁷ :		
Unit version no.	Unit name	HESA HECoS Subject Code	CC1	%	HESA HECoS Subject Code	CC2	%	Prog year ⁵ FT	Prog year ⁵ PT	Core/option	No of credits ⁶	Expected Contact Hours	Level	Assessment ⁸ Element Weightings ⁹		
														Exam 1	C/Work 1	C/Work 2
v1.1	Biological Research Skills	100346	111	100				1		C	20	39	4		30	70
v1.1	Chemistry	100417	112	100				1		C	20	40	4		50	50
v1.3	Cell Biology	100822	112	100				1		C	20	40	4		70	30
v1.1	Practical Skills in Biology	100346	112	100				1		C	20	40	4		50	50
v1.2	Diversity of Life	100346	111	100				1		C	20	40	4		50	50
V1.2	Human Anatomy and Physiology	100350						1		C	20	40	4		50	50
v1.1	Advanced Skills for Biology	100346	112	100				2		C	20	30	5		50	50
v1.1	Evolutionary Biology	100858	111	100				2		C	20	39	5	50	50	
v1.2	Animal Biology	100522	111	100				2		O	20	40	5		50	50
v1.2	Biochemistry	100344	126	100				2		O	20	40	5		100	
v1.2	Ecosystems	100347	111	100				2		O	20	40	5	50	50	
v1.1	Advanced Cell Biology	100822	111	100				2		O	20	40	5		50	50
v1.1	Behavioural Ecology	100522	111	100				2		O	20	40	5	50	50	
V1.12	Becoming Human	100663	126	50	100437		50	2		O	20	40	5	50	50	

v1.1	Environmental and Societal Challenges	100488	111	100				2		O	20	40	5		30	70
v1.2	International Field Trip	100347	111	50	100410	111	50	2		O	20	40	5		50	50
v1.1	Microbiology	100353	111	100				2		O	20	42	5	50	50	
v1.1	Introduction to Toxicology	100277	112	100				2		O	20	40	5	50	50	
v1.1	Independent Research Project (LES)	100346	111	50	100410	111	50	3		C	40	12	6		100	
v1.1	Advanced Topics in Genetics	100259	111	100				3		O	20	40	6	50	50	
v1.1	Biological Oceanography	100351	111	100				3		O	20	40	6	70	30	
v1.1	Marine Conservation	100351	111	100				3		O	20	40	6	50	50	
v1.1	Pathophysiology	100038	112	100				3		O	20	40	6	50	50	
v1.2	Biomolecules	100354	112	100				3		O	20	40	6		50	50
v1.1	Parasitology and Epidemiology	100826	126	100				3		O	20	40	6		50	50
v1.2	Primate Behavioural Ecology	100522	126	100				3		O	20	40	6		20	80
v1.1	Topics in Wildlife Conservation	100347	111	100				3		O	20	50	6	50	50	
Effective from ¹⁰ Prog Year / Month / Year			Contact in School/Faculty (tel no. or generic UG/PG/programme specific email)			Date approved ¹¹ :			Programme Specification version no. ¹² :				Placement ¹³ : Optional 40 week placement (Pass/Fail)			
Yr. 1	Sept	15	Name of Professional, Statutory or Regulatory Body (if appropriate) ¹⁴ :													
Yr. 2	Sept	16														
Yr. 3	Sept	17														

Please note, not all option units may run in each year

PROGRAMME PROFILE

Faculty		Partner institution (where applicable)		Programme				Mode(s) of study						
Faculty of Science and Technology				BSc (Hons) Ecology & Wildlife Conservation				Full-Time						
Unit identification		Prog year *	Core / option	HECoS Subject Code	Cost Centre(s)				No of credits **	Expected Contact hours	Level	Assessment *** Element Weightings		
Unit version no.	Unit name				CC 1	%	CC 2	%				Exam 1	C/Work 1	C/Work 2
v1.1	Ecological Research Skills	1	C	100381	111	100			20	39	4		30	70
v1.1	Ecology	1	C	100347	111	100			20	50	4		50	50
v1.2	Physical Geography	1	C	100410					20	40	4		50	50
v1.2	Wildlife Protection	1	C	100469	111	100			20	40	4		50	50
v1.2	Diversity of Life	1	C	100346	111	100			20	40	4		50	50
v1.2	Residential Field Trip	1	C	100347 (balanced) 100410 (balanced)	111	50	111	50	20	40	4		50	50
v1.1	Advanced Skills for Conservation	2	C	100381	112	100			20	33	5		50	50
v1.2	Wildlife Survey Skills	2	O	100347	111	100			20	70	5		100	
v1.1	Applications of Environmental Science	2	O	101078	112	100			20	40	5	50	50	
v1.1	Evolutionary Biology	2	C	100858	111	100			20	39	5	50	50	
v1.2	Animal Biology	2	O	100522	111	100			20	40	1		50	50
v1.1	Environmental Pollution	2	O	101078	111	100			20	40	5	50	50	
v1.2	Ecosystems	2	C	100347	111	100			20	40	5	50	50	
v2.0	Geographic Information Systems	2	O	100369	111	100			20	36	5		50	50
v1.1	Environmental and Societal Challenges	2	O	100488	111	100			20	40	5		30	70
v1.2	International Field Trip	2	O	100347 (balanced) 100410 (balanced)	111	50	111	50	20	40	5		50	50
v1.1	Behavioural Ecology	2	O	100829	111	100			20	40	5	50	50	
v1.1	Microbiology	2	O	100353	111	100			20	42	5	50	50	
v1.1	Marine Geography	2	O	101065	111	100			20	37	5		50	50
v1.2	Quaternary Environments	2	O	100398	111	100			20	40	5		50	50

v1.1	Independent Research Project (LES)	3	C	100346 (balanced) 100410 (balanced)	111	50	111	50	40	12	6		100	
v1.1	Globalisation and Sustainable Development	3	O	100488	111	100			20	50	6		50	50
v1.1	Climate and Environmental Change	3	O	100408	111	100			20	40	6	30	70	
v1.1	Applied Biogeography	3	O	101318	111	100			20	40	6	50	50	
v2.1	Environmental Remote Sensing	3	O	101056	111	100			20	44	6		50	50
v1.1	Parasitology and Epidemiology	3	O	100826	126	100			20	40	6		50	50
v1.2	Primate Behavioural Ecology	3	O	100522	126	100			20	40	6		20	80
v1.1	Topics in Wildlife Conservation	3	O	100347	111	100			20	50	6	50	50	
v1.0	Environmental Law	3	O	100485	111	100			20	40	6	50	50	
v1.1	Biological Oceanography	3	O	100351	111	100			20	40	6	70	30	
v1.1	Emergence and Extinction: Reconstructing Pliocene and Pleistocene Environments	3	O	100398	111	100			20	40	6	50	50	
v1.1	Freshwater Resource Management	3	O	100849	111	100			20	40	6	50	50	
v1.1	Marine Conservation	3	O	100351	111	100			20	40	6	50	50	

PROGRAMME PROFILE

Faculty of Science and Technology	Partner institution (where applicable)		Programme BSc (Hons) Environmental Science	Mode(s) of study Full-Time
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Unit identification		Prog year *	Core / option	HECoS Subject Code	Cost Centre(s)				No of credits **	Expected Contact hours	Level	Assessment *** Element Weightings		
Unit no.	Unit name				CC 1	%	CC2	%				Exam 1	C/Work 1	C/Work 2
v1.1	Environmental Research Skills	1	C	100381	111	100			20	39	4		30	70
v1.2	Fundamentals of Environmental Science	1	C	100348	111	100			20	40	4		50	50
v1.2	Physical Geography	1	C	100410					20	40	4		50	50
v1.1	Chemistry	1	C	100417	112	100			20	40	4		50	50
v1.2	Diversity of Life	1	C	100346	111	100			20	40	4		50	50
v1.2	Residential Field Trip	1	C	100347 (balanced) 100410 (balanced)	111	50	111	50	20	40	4		50	50
v2.0	Advanced Skills for Environmental Science	2	C	100381	112	100			20	20	5		50	50
v1.1	Applications of Environmental Science	2	C	101078	112	100			20	40	5	50	50	
v1.1	Environmental Pollution	2	C	101078	111	100			20	40	5	50	50	
v1.2	Ecosystems	2	O	100347	111	100			20	40	5	50	50	
v2.0	Geographic Information Systems	2	O	100369	111	100			20	36	5		50	50
v1.1	Environmental and Societal Challenges	2	O	100488	111	100			20	40	5		30	70
v1.2	International Field Trip	2	O	100347 (balanced) 100410 (balanced)	111	50	111	50	20	40	5		50	50
v1.1	Behavioural Ecology	2	O	100829	111	100			20	40	5	50	50	
v1.1	Microbiology	2	O	100353	111	100			20	42	5	50	50	
v1.1	Marine Geography	2	O	101065	111	100			20	37	5		50	50
v1.2	Quaternary Environments	2	O	100398	111	100			20	40	5		50	50

v1.1	Independent Research Project (LES)	3	C	100346 (balanced) 100410 (balanced)	111	50	111	50	40	12	6		100	
v1.1	Globalisation and Sustainable Development	3	O	100488	111	100			20	50	6		50	50
v1.1	Climate and Environmental Change	3	O	100408	111	100			20	40	6	30	70	
v1.1	Applied Biogeography	3	O	101318	111	100			20	40	6	50	50	
v2.1	Environmental Remote Sensing	3	O	101056	111	100			20	44	6		50	50
v1.1	Earth Surface Processes and Landforms	3	O	100410	111	100			20	55	6		50	50
v1.1	Topics in Wildlife Conservation	3	O	100347	111	100			20	50	6	50	50	
v1.0	Environmental Law	3	O	100485	111	100			20	40	6	50	50	
v1.1	Biological Oceanography	3	O	100351	111	100			20	40	6	70	30	
v1.1	Emergence and Extinction: Reconstructing Pliocene and Pleistocene Environments	3	O	100398	111	100			20	40	6	50	50	
v1.1	Freshwater Resource Management	3	O	100849	111	100			20	40	6	50	50	
v1.1	Marine Conservation	3	O	100351	111	100			20	40	6	50	50	

Please note, not all option units may run in each year

PROGRAMME PROFILE

Faculty Faculty of Science and Technology	Programme: BSc (Hons) Geography	Mode(s) of study Full-Time
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Unit identification		Prog year *	Core / option	HECoS Subject Code	Cost Centre(s)				No of credits **	Expected Contact Hours	Level	Assessment *** Element Weightings		
Unit no. (given by School)	Unit name				CC 1	%	CC2	%				Exam 1	C/Work 1	C/Work 2
v1.1	Geographic Research Skills	1	C	100408	111	100			20	39	4		30	70
v1.1	Earth and Society		C	100408	111	100			20	36	4		30	70
v1.2	Physical Geography	1	C	100410					20	40	4		50	50
v1.1	Human Geography	1	C	100478					20	40	4		40	60
v1.1	Practical Skills in Geography	1	C	100410					20	40	4		30	70
v1.2	Residential Field Trip	1	C	100408	111	100			20	40	4		50	50
v1.1	Advanced Skills for Geography	2	C	100410	112	100			20	30	5		50	50
v1.1	Marine Geography	2	C	101065	111	100			20	37	5		50	50
v2.0	Geographic Information Systems	2	C	100369	111	100			20	36	5		50	50
v1.2	Quaternary Environments	2	O	100398	111	100			20	40	5		50	50
v1.2	Ecosystems	2	O	100347	111	100			20	40	5	50	50	
v1.1	Environmental and Societal Challenges	2	O	100408	111	100			20	40	5		30	70
v1.2	International Field Trip	2	O	100347 (balanced) 100410 (balanced)	111	50	111	50	20	40	5		50	50
v3.0	Understanding Globalisation	2	O	100627					20	30	5		30	70
v1.1	Environmental Pollution	2	O	101078	111	100			20	40	5	50	50	
v1.1	Applications of Environmental Science	2	O	101078	112	100			20	40	5	50	50	
V1.0	Urban Social Geography	2	O						20	40	5		40	60
v1.1	Independent Research Project (LES)	3	C	100346 (balanced) 100410 (balanced)	111	50	111	50	40	12	6		100	

v1.1	Globalisation and Sustainable Development	3	O	100488	111	100			20	50	6		50	50
v1.1	Climate and Environmental Change	3	O	100408	111	100			20	40	6	30	70	
v1.1	Applied Biogeography	3	O	101318	111	100			20	40	6	50	50	
V2.1	Environmental Remote Sensing	3	O	101056	111	100			20	44	6		50	50
v1.1	Earth Surface Processes and Landforms	3	O	100410	111	100			20	55	6		50	50
v1.2	Wildlife and Ecotourism	3	O	100347	111	100			20	39	6		40	60
v1.0	Environmental Law	3	O	100485	111	100			20	40	6	50	50	
v1.1	Biological Oceanography	3	O	100351	111	100			20	40	6	70	30	
v1.1	Emergence and Extinction: Reconstructing Pliocene and Pleistocene Environments	3	O	100398	111	100			20	40	6	50	50	
v1.1	Freshwater Resource Management	3	O	100849	111	100			20	40	6	50	50	
v1.1	Marine Conservation	3	O	100351	111	100			20	40	6	50	50	
v1.1	Cultural Ecology	3	O	100437					20	36	6	50	50	
V1.0	Contemporary Topics in Geography	3	O						20	40	6		50	50

Please note, not all option units may run in each year

PROGRAMME PROFILE

Originating Institution(s): BU		Place(s) of Delivery: BU Talbot		Framework Title (in full): Life and Environmental Sciences				Mode(s) of Study ¹ : FT/PT				Expected Length of Study ² : 1 years FT/ 2 years PT BU Credit Structure & ECTS ³ : Level 6 120 (60ECTS)				
School/Faculty: SciTech		Language of Delivery (<i>if not English</i>):														
Partner: Kingston Maurward College		Programme HESA HECoS code: 100351, 100883, 100418														
		Programme Award and Title: BSc (Hons) Marine Ecology and Conservation – Top Up				Interim Award and Titles & Required Credits: n/a										
Unit identification		Cost Centre(s) ⁴						Unit Details						Assessment Regs ⁷ :		
Unit version no.	Unit name	HECoS Subject Code	CC1	%	HECoS Subject Code	CC2	%	Prog year ⁵ FT	Prog year ⁵ PT	Core/option	No of credits ⁶	Expected Contact Hours	Level	Assessment ⁸ Element Weightings ⁹		
														Exam 1	C/Work 1	C/Work 2
v1.0	Environmental law	100485	111					1		O	20	40	6	50	50	
v1.1	Freshwater Resource Management	100849	111					1		O	20	40	6	50	50	
v1.1	Independent Research Project (LES)	100346	111	50	100410	111	50	1		C	40	12	6		100	
v1.1	Marine Conservation	100351	111					1		C	20	40	6	50	50	
v1.0	Marine Field Study Techniques	100351	KMC					1		C	20	42	6		40	60
v1.0	Marine Mammal Ecology and Behaviour	100347	KMC					1		C	20	42	6		50	50
v1.1	Biological Oceanography	100351	111					1		O	20	40	6	70	30	